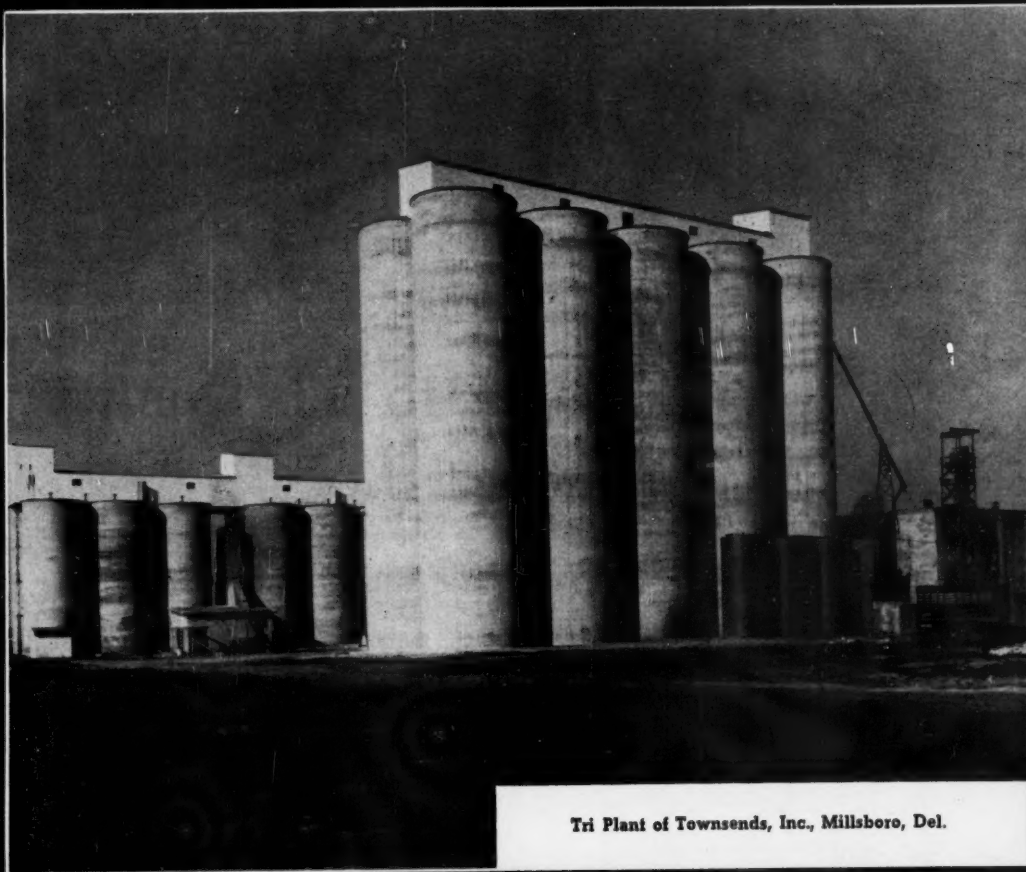


THE Soybean Digest

OFFICIAL PUBLICATION • AMERICAN SOYBEAN ASSOCIATION



Tri Plant of Townsends, Inc., Millsboro, Del.

MAY • 1952

VOLUME 12 • NUMBER 7



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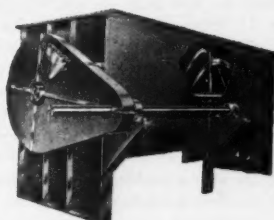
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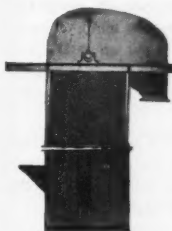
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EDITOR'S DESK

New Meal Ceiling Solves Little

On April 23 the Office of Price Stabilization announced an order that changed the ceiling price on soybean oil meal from \$74 per ton to \$81 per ton, bulk, basis Decatur. That move came after a great amount of confusion, and after a flock of rumors about moves underway. It will solve some problems, but it does not change the basic causes of trouble.

Purposely, we have refrained from editorial comment on ceiling prices. Soybeans and soybean products were among the first items on which ceilings were slapped on Jan. 21, 1951. Oil at that time sold at 20½¢ per pound, and above. Today oil sells at 9¢ per pound. Meal then sold at \$74 per ton, has of necessity stayed at that level. It would have gone higher during recent months, if permitted. Soybeans have never reached ceilings since the 1951 crop movement began. Since bean ceilings had not been reached, we deemed it unwise to editorialize. Meal ceilings were a problem of the processors. Until they began to affect markets or acreage we deemed it not within the province of our activities to interfere.

Processors of soybeans never reached complete agreement on steps that should be taken, except to recommend complete removal of all ceilings on soybeans and soybean products. Naturally, when the industry could not agree on a program which the OPS men would accept, nothing was done. There was a stalemate for a period of weeks.

Frankly, we favor removal of all ceilings. Soybeans are the only agricultural crop on which there is a ceiling in the raw state. Probably there should never have been a ceiling on soybeans. The present change, we are convinced, is not going to solve the problems. It is not going to make meal more available. It is not sufficiently high to make processing profitable in all plants. It is only a partial solution.

Lowering of the ceiling on soybean oil was politically expedient. There was safety in placing a ceiling price of 16¢ on an item in plentiful supply and selling it at less than 9¢. No one could foresee political implications.

In an election year there were political implications in removing ceiling prices on an item which was selling at the ceiling, would jump upward immediately if they were removed. A \$7 rise was merely placation—not a solution. Ceilings for the sake of ceilings must be maintained in an election year. The \$81 figure was not set by the men in OPS who know the feed and processing industries. It was set in the front office—based on political considerations. An \$88 ceiling had been recommended by the staff members in charge of feed ceilings. They were overruled.

Controls are easy to institute. They are hard to stop. One leads to another. Soon they are maintained for their own sake. We are now in that stage.

There is a solution. It is a simple one. It is for the members of Congress to take back the responsibilities which they have delegated, do away with the foolishness

of unnecessary ceilings; also with WSB recommendations on high wages, union shops, other economic factors outside governmental jurisdiction.

It is an election year. We doubt if Congress has guts enough to do the job this year. It needs only reassert itself, reassume for the legislative branch of government those powers which the constitution provides to it, but which have been delegated to agencies and bureaus. Some day common sense will return, Congress will be made up of strong men who are statesmen—then the job will be done. The few members now doing their own thinking cannot do the job alone. They do not have enough votes.

Representation at Copenhagen

Representatives of European oilseed buyers attending the International Oilseed Crushers conference in London last year were highly critical of the quality of American soybeans reaching those markets. Reference was made on this editorial page to the resolution passed by that conference. World-wide in scope, this organization is made up of the crushers of soybeans and all other oilseed crops.

At the meeting one year ago there was no one present to speak for American soybean producers, defend their position, or bring back suggestions for betterment of the situation. The 1952 conference will be held in Copenhagen on June 10 to 13. Invitation has been issued to the Office of Foreign Agricultural Relations, U. S. Department of Agriculture, to have a representative present at the 1952 sessions. Paul Quintus, head of the fats and oils division of OFAR, will be present. As a representative of the Department of Agriculture he will be a direct representative of the growers of soybeans in the United States.

We have invited Quintus to appear on our convention program at Lafayette in September to discuss the meetings and the consideration given to export problems on American soybeans. We hope he will find it possible to do so. We need direct contacts with export buyers, in order that we may better know the type of product desired, and the steps necessary to supply.


Take a Step in Right Direction

To be congratulated are the men responsible for calling a meeting of representatives of the soybean production, handling and export industries in New Orleans on May 5. A sincere effort to determine why exporters have not been satisfied with some cargoes of soybeans, and why there have been especially large discrepancies in foreign material analysis, will be made.

Growers from Mississippi, Louisiana and Arkansas have been invited, as well as shippers, brokers, along with representatives of the public elevator, the dock board, and governmental grain grading agencies. These are the men who have an especially large stake in the export market. They are to be congratulated for facing the situation squarely.

A report will be carried in the June issue.

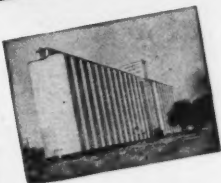
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We are very well pleased with the new model 400 G Steinlite Tester as it fits our requirements very well. The new fast reading thermometer in the new tester is a great improvement and speeds up the operation considerably. We will highly recommend the use of this new tester to the grain trade.

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GROWERS

Rotary Hoe Popular

(Reprinted from Ford Farming)

The newest row-crop giant—soybeans—is taking appropriate strides profit- and production-wise with the help of an implement long considered standard equipment in the cotton and Cornbelt.

The rotary hoe, first used to speed cultivation and growth in the Cornbelt, later on Southern cotton plantations, is fast becoming the most popular cultivation implement of the soybean grower.

According to Jim Ferris, Ford tractor dealer at Yazoo City, Miss., farmers were quick to see the benefits of the rotary hoe in the fields of bark-protected cotton—not so quick to accept it in the fields of tender soybean plants.

"The sight of the churning hoe wheels, passing directly over the young bean shoots was just too much for some of them . . . sometimes they'd call a halt to the demonstration right there," said Ferris.

But others, who had a long string of profit and production figures from their cotton records to back them, stayed to see what this mechanical hoe would do. Thorough examination of the mechanically hoed fields produced an interesting story.

The sun-hardened soil surface was thoroughly broken, permitting faster plant growth and increasing the water holding capacity of the soil. The revolving hoe shovels flipped out the shallow-rooted small weeds and young grass in the plant rows without damage to the stronger-rooted bean plants.



Rotary hoe passes directly over the soybean plants, loosens soil, kicks out shallow-rooted grass and young weeds without damage to growing beans.

"You can see what that meant to soybean growers," said Ferris. "Hand labor had been cutting out a bigger and bigger chunk of the profits. Here was their chance to cut out a big chunk of the hand labor."

James Simmons of Carter, Miss., was quick to sense the possibilities of the rotary hoe. Simmons farms 800 acres of rich delta land, including 600 acres of soybeans.

"Unless a bean farmer wants to combine weeds at harvest time," said Simmons, "he has to get the weeds and grass early. It's the easiest thing in the world to let the grass get ahead of you after one little rain."

Simmons tested the rotary hoe himself, saw that he could get onto his land quicker, eliminate grass and weeds faster—and produce his beans cheaper. He begins his cultivation even before the beans are out of the ground, using the rotary hoe to

break up the crusted surface. That's just the start.

"In a normal year," said Simmons, "I figure to use nothing but the rotary hoe for cultivation until the beans are about eight or nine inches high."

Simmons is careful to point out that the secret of peak production, clean fields and good profits, is early cultivation. The rotary hoe works best on shallow roots. Weeds and grass must be caught before their weed system has a chance to develop.

"If you don't harvest the weed crop early," says Simmons, "You'll have to harvest it late—and there's no profit in that."

Plant Beans First?

The time soybeans go in the ground has a big influence on the yield. So much, in fact, that Iowa State College agronomists think some

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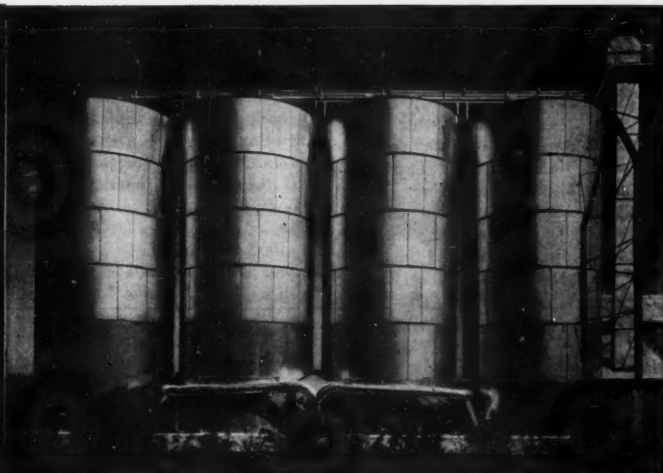
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Iowa farmers may be ahead if they revise the time-honored custom of getting all of the corn in before they start planting beans.

The research men compared five different planting dates with four different varieties on the college agronomy farm at Ames. Three of the varieties they planted were full-season varieties adapted for central Iowa, and the other was early maturing Mandarin. Plantings of the four varieties were made on May 1, 12, 23, June 1 and June 14.

Yields of the three adapted varieties were averaged together, and the best yields came from May plantings—a three-year average yield of about 32 bushels to the acre. But after May the decrease was abrupt and rapid. The June 1 plantings averaged 26 bushels and the June 14 plantings yielded just a bit more than 22 bushels, on the average.

Mandarin—the early-maturing variety—behaved in a manner practically the opposite. Its average yield was 22 bushels on the May 1 planting. On May 12 planting the yield went up to more than 24, and on up to 25 bushels on May 23 planting. The June 1 planting yielded a little less—almost 24 bushels—but from there the yield started moving up again, and the average reached 25 bushels for the June 14 planting—nearly three bushels to the acre better than the average for the full season varieties planted June 14.

Soys Shift to South

A real shift in soybean acreages is taking place this year. Midsouth states are coming up in acreage and Cornbelt states are dropping back, according to the U. S. Department of Agriculture Mar. 1 forecast.

If the acreages materialize there may be quite a shift in the top soybean-producing states of the nation in 1952. Missouri will move into second place (with Illinois first) and Iowa will drop down to fourth.

During most of the war years the top six in soybean acreage were as follows in order: Illinois, Iowa, Indiana, Ohio, Missouri and Minnesota.

But in 1952 the forecast lineup will be Illinois, Missouri, Indiana, Iowa, Minnesota and Ohio. The only states that will gain in acreage are Missouri and Minnesota.

Illinois will grow almost double the acreage of any other state, as it has in the past.

Delta Trend Continued

The strong trend to soybeans continues in the Mississippi Delta section of Missouri, Arkansas, Tennessee and Mississippi. All except Tennessee will plant a big increase in acres this year.

Here are the figures in percentages: Arkansas, 30 percent; Missouri, 25 percent; Mississippi, 15 percent; and Tennessee, 4 percent.

W. R. Thompson, associate extension agronomist, recommends that 20 to 25 percent of Delta land be planted to soybeans, as reported by Delta Farm Press. He recommends that 40 to 50 percent of the land be planted to cotton, 10 to 20 percent to corn, and 20 to 25 percent to pastures.

Soybeans will grow and make a profit on a wider range of Delta soils than cotton will, and will do well on much of the heavy land in the Delta. Soybeans are attacked less by leaf blights on the heavier lands than they are on the lighter lands.

May 1 has been suggested as a good planting date in the Delta. Beans planted in June have not made the yields of beans planted May 1. Some times grain crops are harvested and soybeans planted following them. In most cases this is too late for high yields.

Mississippi Contest

Sunflower County, Miss., is planning a soybean yield contest this year. Over 40,000 acres were planted to soybeans in 1951, according to Cecil Black, county agent. But many more acres should be planted to soybeans, he says.

The contest, called the "50-Bushel Soybean Contest," is to stimulate soybean production in Sunflower County. Cash prizes will be awarded to the three highest producers with 35 bushels or more per acre.

The contest is sponsored by the Delta Brokerage and Warehouse Co., Indianola, Miss., in cooperation with the county extension service.

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FEEDING

Less Protein with B-12

You can cut down somewhat on protein feeding of pigs if you use the new fortifiers, according to Damon Catron and others in a recent issue of Feedstuffs.

If hog rations are balanced with vitamin B-12, other B vitamins and trace minerals, and an antibiotic is added, the higher protein levels recommended in the past are not needed, they say.

These new ingredients in hog feeds are making the difference.

SOYBEAN DIGEST

Hog producers now ask two questions:

1—Do the new growth-producing ingredients actually replace protein in hog rations?

The answer is "No!" Corn alone doesn't make a balanced ration. Adding the new growth-promoting nutrients to corn still does not make it a balanced ration. These nutrients work with protein and corn to make the total ration better.

2—What level of protein is now recommended when feeding hog rations that include the new ingredients?

The most satisfactory level seems to be: weaning to 75 or 100 pounds, 14 percent; 100 to 150 pounds, 12 percent; 150 pounds to market weight, 10 percent.

This report does not quite agree with one by Dr. John Lasley, animal husbandryman at the Missouri College of Agriculture. Lasley says that the rate of gain of growing-fattening pigs fed a high-protein ration in dry lot was increased by 15 percent when aureomycin was added. But its addition did not decrease the need for protein.

"The experiment was the first in a series designed to test the value of aureomycin in relation to high or low-level protein rations for swine," Lasley said.

The antibiotic was more effective when added to the high-level ration (18 percent crude protein) than when used with the low-level protein (12 percent crude protein).

— s b d —

THE COVER PICTURE

Recently, Townsends, Inc., Millsboro, Del., added another division to its large farming business, as operation of the new soybean processing plant got under way. The plant was designed and furnished by the Crown Iron Works, Minneapolis, Minn., and is the extraction type using trichloroethylene as the solvent.

Soybean storage for the plant consists of 10 concrete silos with a capacity of 250,000 bushels. The capacity of the processing plant is 50 tons of soybeans per day with a bulk storage capacity of soybean oil meal in excess of 400 tons.

Most of the meal production will be consumed in the adjacent feed-mixing plant. The two plants are so arranged that no further manual

handling is required after the soybeans are put into storage until the finished feed is loaded on trucks for delivery. Bulk feed loading is also being used. The feed plant has a capacity of over 250 tons per day of feed and pellets. The entire feed output is required to feed the thousands of broilers and laying chickens being turned out by the 25 incubators in the modern Townsend hatchery.

The soybean plant will operate on

local soybeans grown on the Delmarva Peninsula and will provide a year-round market for soybeans to the farmers and grain dealers in this section.

This large broiler-raising business of Townsends, Inc., is headed by Ex-U. S. Senator John G. Townsend, Jr., with Vice President Preston C. Townsend general manager of the soybean operation, assisted by Plant Manager John D. Phillips.



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Can we increase average per-acre production by half? There is a good chance if proper practices are followed.—Photo courtesy North Iowa Cooperative Processing Association.

Outlook for Increased Production

ON PRESENT ACREAGE

By H. B. CHENEY

Agronomy Department, Iowa State College.
Presented at Tri-State Soybean Processors
Conference, Ames, Iowa.

IN JULY 1951 the National Soybean Processors Association issued a revised edition of Soybean Farming. It contains this statement: "We predict, when these proven practices are used by nine out of ten soybean growers, yields will reach a national average of 30 bushels with some states averaging 35 bushels. Do you believe it?"

The average yield of soybeans in the United States for 1940-1949 was 19 bushels per acre. In 1951 Illinois had an average yield of 26 bushels per acre. This is higher than we have obtained as yet in Iowa. Can we increase yields per acre 50 percent? I believe many farmers can.

Since you are all familiar with the practices that contribute to higher

yields I will merely list them. They are as follows:

- 1—Best varieties.
- 2—Inoculation.
- 3—Good seed bed.
- 4—Timely planting.
- 5—Weed control.
- 6—Proper spacing.
- 7—Contour planting on sloping soils.
- 8—Improved drainage.
- 9—Adequate lime.
- 10—Improved rotations.
- 11—Adequate fertilizer in the rotation.

In addition appreciable savings can be made by reducing combine losses.

Recently the United States Department of Agriculture and the Land Grant Colleges made a study of agricultural productive capacity. Com-

mittees in each state made a number of estimates including one of the maximum yields per acre that could be expected if all of our present knowledge were put into practice. These estimates were based on the following assumptions:

- 1—Average weather.
- 2—Relatively favorable farm prices.
- 3—Adequate machinery, fertilizers, etc.
- 4—Less labor with higher wages.
- 5—Superior management.
- 6—Adequate time for practices to be effective.

The main criteria was, "Would it be profitable and practical for a superior farm manager?"

Although these estimates are far from perfect they do give a good starting point for estimating the possibilities of increasing yields per acre. Estimates of maximum yields along

with present average yields of soybeans and corn are given in Table 1.

Table 1. The present average yields per acre and the estimated maximum yields per acre of soybeans and corn from four Midwest states.

State	Soybeans		Corn	
	Present (Bu/A)	Maximum (Bu/A)	Present (Bu/A)	Maximum (Bu/A)
Iowa	22	30	50	85
Minnesota	16	18	42	46
Missouri	23	30	40	50
Illinois	24	25	51	80

The agricultural productive capacity committees generally indicated that appreciable increases in the yield of soybeans were possible. In order to compare the increases estimated for soybeans with those for corn the corn-to-soybeans yield ratios were calculated and are shown in Table 2.

Table 2. Corn-to-soybean yield ratios in four Midwest states.

State	Present	Maximum
	Ratio of corn to soybean yields	Ratio of corn to soybean yields
Iowa	2.27	2.83
Minnesota	2.62	2.56
Missouri	1.74	1.66
Illinois	2.12	2.28

Now let us re-examine the question, "What are the potential yields of soy-

beans in Iowa?" On the basis of the agricultural productive capacity study and other information I predict that the yield of soybeans in Iowa could reach 30 to 35 bushels per acre.

I would raise the Iowa capacity study estimates. First, we made no allowance for residual or direct effects of fertilizer on soybean yields in the capacity study. This might well average two to three bushels per acre.

Moreover, you will notice in Table 2 that the ratio of corn-to-soybean yields was widened considerably under the maximum estimates. Most experimental data indicates that the yield ratio of corn to soybeans would be widened some but not as much as shown in Table 2. Consequently I would suggest that our lack of information on soybeans has lead to underestimating potential yields.

In summary, I am sure that soybean yields can be increased markedly in the years ahead. A 50 percent increase in yield would appear to be a reasonable long-time goal. Much additional research is needed. Likewise it will take an increased educational effort on the part of all of us.

Even then it will take several years to attain. It can be done. LET'S DO IT!

— s b d —

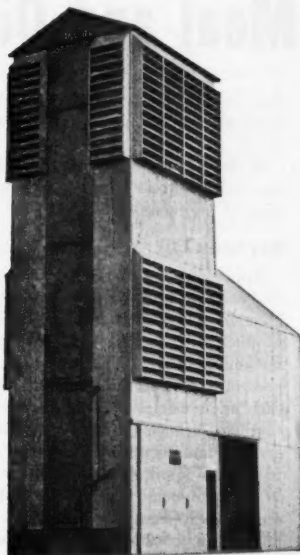
TRANSIT FOR MISSOURI

Transit privileges have been allowed on soybeans originating in southeast Missouri to Decatur, Ill., Bloomington, Ill., St. Louis, Mo., and Taylorville, Ill., W. F. Knoblock, chairman of the Southwestern Freight Bureau, St. Louis, Mo., announced Mar. 31.

Transit on southeast Missouri soybeans to 'above points is allowed when the resulting cake and meal is to be reshipped to points in the Southwest.

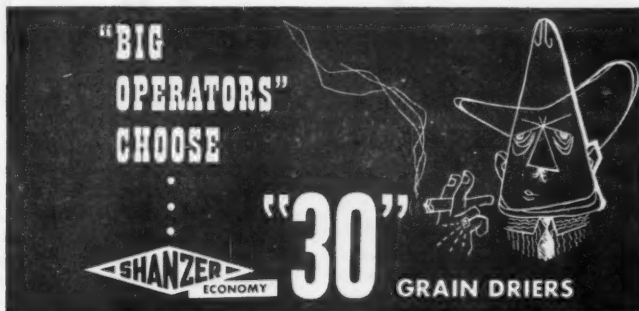
Hearing on the proposal was held before the executive committee of the Freight Bureau in St. Louis Mar. 25. Proponents said transit arrangements would make for a much less restricted market for southeast Missouri soybeans, which have been mostly shipped abroad in the past.

Decision is subject to concurrence of carrier members of the Illinois Freight Association.



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A great deal more soybean oil meal will be needed to properly feed our animals than can be produced from the soybeans grown on our present national acreage, unless we can step up our yields.

OUTLOOK FOR Increased Use of Meal and Oil

By **FRED H. HAFNER**

General Mills, Inc., Minneapolis, Minn. Presented at Tri-State Soybean Processors Conference, Ames, Iowa.

SOYBEAN PRODUCTION in the U.S. exceeded 300 million bushels in 1950. The latest government estimate of the 1951 soybean crop is 280 million although Jan. 1, 1952, soybean stocks added to soybeans processed and exported during the October-December quarter of 1951 total 290 million bushels, approximately 10 million bushels more than the government estimated.

Last year at crop's end the soybean carry-over was 4 million bushels. The soybean industry can process 4 million bushels of soybeans in five days. The minimum carry-over from one crop to another should, in my estimation, be the equivalent of one month's processing requirements which currently is 25 million bushels. This would tend toward eliminating shortages of soybean protein at the end of a crop year and moderating the price

swings that develop as a result of such shortages.

On the basis of current estimates, we will have another small soybean carry-over at the end of the present crop year. And yet the Department of Agriculture is contemplating a cut-back of soybean acreage equivalent to 2 percent of the 1951 planted acreage. Is such a cut-back consistent with the potential demand and requirement for soybean products? This is the question I will attempt to answer.

Before forecasting the future demand for soybean oil and soybean oil meal, let me set down certain basic assumptions. Let us assume that:

1—Our nation will continue in its present economic state; that is, there will be no economic crisis, no depression, no all out war.

2—Our population will continue to increase at a normal rate.

3—Our eating habits will improve through education and promotion so that on the whole our nutritional status will advance to a higher plane.

4—Taxation is at a maximum so

Somewhat different viewpoints are expressed in the two outlook articles on this and following pages. Be sure to read them both.

that buying power and living standards will not decline in the years just ahead.

If these assumptions are allowed I can then proceed with the development of my forecast.

Soybean Oil

Approximately 90 percent of our soybean oil production in the U. S. is used in the manufacture of edible products such as shortening, margarine and salad oils. The remaining 10 percent is used in industrial products such as industrial finishes, protective coatings, cleansing agents, lubricants, greases, and chemical specialties. It is the dual application of soybean oil in both edible and industrial uses that sets it apart from other oils such as linseed oil, cottonseed oil, corn oil, peanut oil, coconut oil and lard where applications are either edible or industrial but not both.

The use of soybean oil in industrial applications is likely to be curtailed in the future as a result of two very important developments, namely:

1—The extensive inroads made by

detergents on the soap market, and

2—The replacement of vegetable oils by synthetic-rubber bases in the compounding of paints.

Expanding these two important developments, we find first of all that the use of vegetable oils in soap has been on the decline for some time and as better and more efficient "soapless" powders and cleaners are made available less and less oil will be required by the soap industry.

Rubber Base Paints

Secondly, the development of protein paints and rubber-base or latex paints for interior application already has affected the market for vegetable oils, of which soybean oil is one. Further research is now being conducted in an effort to develop satisfactory rubber-base paints for external use. In view of these two major developments already well under way we cannot be too optimistic about any increase in the volume of soybean oil used in industrial applications.

However, the possibility for increased use of soybean oil in edible applications is very good. I base this on the following statistics:

Per capita butter consumption in the U. S. has declined markedly in the past 10 years—from 16.0 pounds to 10.8 pounds per person per year. During the same period margarine consumption has increased from 2.7 pounds to 6.1 pounds per person per year. However, combined butter-margarine consumption for this period declined from 18.7 pounds to 16.9 pounds per person per year. In fact, comparing combined butter-margarine consumption now with consumption in 1939 we find the per capita decline amounts to 3.1 pounds per year. This is equivalent to 6200 tank car loads of edible vegetable oil—approximately our current surplus of this commodity.

Comparing our current annual per capita butter-margarine consumption with the figure that nutritionists have established as optimum, we discover that we have a potential market for an additional 34,000 tank car loads of edible vegetable oils in this country alone. If we can obtain one-half of this potential market during the next decade we could more than justify increased soybean acreage to supply the crude soybean oil.

As more and more of the states pass legislation permitting the sale of colored margarine the consumption of

margarine is bound to increase on its own merits alone. Such legislation cannot be postponed forever. At the same time I feel there will always be a good market for butter at a price.

Consumption of soybean oil in shortening is difficult to predict inasmuch as the relationship between the price of lard and the price of vegetable oils will cause fluctuations in the demand for animal and vegetable shortening. A reduction in the spring crop of pigs of 9 percent or more undoubtedly will bring about a firming in lard prices next fall thereby creating a better demand for vegetable oils which probably still will be in surplus supply. The following year this situation could be reversed.

Soybean Oil Meal

Demand for oilseed proteins in the U.S. has increased markedly in recent years. This is evident from the figures compiled by the USDA Bureau of Agricultural Economics for the "Quantities of Oilseed Proteins Used for Feed in the U.S.":

Year	Tons
1937-1941 (ave.)	3,900,000
1946-1947	5,800,000
1947-1948	6,241,000
1948-1949	7,305,000
1949-1950	7,534,000
1950-1951	8,628,000

The usage during 1950-1951 is 121 percent greater than the average usage during 1937-1941 and 38 percent greater than the usage during 1947-1948. This increase in oilseed protein usage was not made at the expense of meat and fish proteins. Nor has the advent of urea as a protein-sparing feed ingredient appreciably slowed the demand for oilseed proteins.

Part of the explanation for the increased consumption of oilseed proteins is that they were the only proteins available to take care of the demand brought about by an increase in total animal consuming units.

The following table shows the increase in the number of animal consuming units between 1937-1941 and 1950:

Year	Number of animal consuming units fed annually
1937-1941 (ave.)	153.1
1945	167.8
1946	161.4
1947	155.9
1948	162.9
1949	170.1
1950	172.0*

* Preliminary.

But the increase in the animal consuming units in 1950 as compared to 1937-1941 is only 14 percent. This

then is only a part of the answer as to the cause for the increased usage of oilseed proteins in animal feeding. The other part of the answer must be *improved feeding practices*. There is no question but that during the past decade we have balanced our feeds better, reduced wasteful feeding practices by supplementing farm grains with concentrates or supplements, and fed higher protein diets. Actually at times the price relationship between corn and oilseed proteins has been more favorable to the feeding of protein than to the feeding of corn.

A great deal of credit for our present knowledge of animal nutrition must go to the men who conduct research studies in schools, at experiment stations and in industry. The recent applications of vitamin B-12 and antibiotics to enhance the value of soybean oil meal in rations for swine and poultry has been a tremendous step forward in increasing the general demand for soybean oil meal as a feed ingredient. Higher and higher levels are being used in feeds.

Let's not sell our research scientists short and assume their job is finished. I have faith in their ability to continue to improve our knowledge of nutrition so that in 10 years even better feeding practices will be employed. I also am confident that a great deal more soybean oil meal will be needed to properly feed our animals than can be derived from the soybeans grown on 13 million acres

(Continued on page 24)

People are eating more margarine, but not as much as they should be for optimum nutrition. There is a big potential market here.



SOYBEAN OIL MEAL

Prices and Prospects

By DON PAARLBERG

Purdue University. Remarks at the Tri-State Conference at Purdue.

SOYBEAN OIL MEAL is considered an excellent source of protein for all classes of livestock. Normally, slightly more than 50 percent of the value of soybeans is in the meal. Probably the future of the soybean depends more on the outlook for meal than on the outlook for oil.

Soybean oil meal is in competition with other high-protein feeds. It is roughly equal in importance to the wheat millfeeds; each comprises about 25 percent of the total value of the high-protein feeds.

Big Changes

There have been big changes in the use of high-protein feeds during the past 25 years. The most important changes have been:

1—Improved technology in the use of all high-protein feeds.

2—An increase in total high-protein feeds consumed per animal.

3—An increase in the number of animals fed.

4—A decline in the use of milk by-products for livestock feed.

5—A decline in the use of wheat millfeeds.

6—A relative decline in the use of cottonseed meal.

7—A tremendous increase in the use of soybean meal.

Total supplies of competing feeds have been reduced, livestock numbers have increased, and the rate of feeding has increased. Thus the tremendous increase in soybean oil meal production has been necessary; it has not resulted in burdensome supplies of high-protein feeds.

Most of the protein in the livestock ration comes from pasture, hay and grain. Only about 8 or 10 percent of the protein comes from the high-pro-

tein feeds. Thus the supply of high-protein feeds can be altered considerably without greatly affecting the over-all ration of roughage-consuming livestock.

Despite the rising trend in the amount of high-protein feed per animal unit, supplies would have to be increased about 80 percent above the current level to "balance rations" at the level recommended by studies in animal nutrition.

Among factors indicating a strong call for high-protein feeds in the future are these:

1—A prospective further increase in livestock numbers to feed our growing population.

2—An improvement in nutritional knowledge on the part of farmers and commercial feed manufacturers.

3—An increasing desire for mixed feeds with the proper amount of protein.

4—Continued use of milk by-products as food for people rather than feed for animals.

5—Prospects for a continued relative decline in the production of wheat millfeeds and cottonseed meal.

6—Evidence from various sources that the protein content of present day hybrid corn is less than the protein content of corn 15 years ago.

Partially offsetting these factors is the gradual increase in the production of legumes with a high-protein content.

Soybeans yield about twice as much meal per pound of oil as cottonseed, their closest competitor in this respect. Soybeans appear to be a logical and economic source for the additional supplies of high-protein feed that will be necessary to supplement the rations of our increasing livestock population.

Prices

There are about 20 million tons of

high-protein feeds to supplement about 120 million tons of feed grains, 100 million tons of hay, and about 40 million tons of silage. In addition there is pasture. Thus there are only about eight pounds of high-protein feed to spread over each 100 pounds of other feed.

The job of equitably sprinkling eight pounds of high-protein feed over 100 pounds of other feed is a difficult task. The difficulty is magnified by the many kinds of high-protein feed, the different kinds of livestock of varying ages and requirements, the many types of farming, differing seasonal needs, differing levels of knowl-

TABLE I
Soybean Oil Meal and Other High Protein Feeds: Feed Use, Supplies Per Animal Unit and Price Relationships, 1930-1951.

Yr. beginning Oct. 1.	Soybean meal used for feed, thousand tons.	High protein feed,* pounds fed per animal unit.	Percent the price of soybean meal per lb. of other feed per lb. Chicago.
1930-31	123		146
1931-32	133		162
1932-33	113		220
1933-34	99		188
1934-35	267		111
1935-36	614		109
1936-37	532		94
1937-38	719		136
1938-39	1020		150
1939-40	1276	115	149
1940-41	1491		128
1941-42	1785		148
1942-43	3074		132
1943-44	3822	118	127
1944-45	3627	128	126
1945-46	3655	122	90
1946-47	3745	128	126
1947-48	3383	126	110
1948-49	4156	144	135
1949-50	4514	146	162
1950-51	5725	140	125
1951-52	5400†	147†	112‡

*—Weighted as follows: oil meals, 1.0; packing house by-products, 1.4; milk products, 1.0; gluten feed and meal, .7; brewers and distillers dried grain and copra meal, .5. This total divided by number of grain consuming animal units fed annually exclusive of horses and mules.

†—Estimated.

‡—As of March 20, 1952. No. 3 corn \$1.55. Soybean meal \$74.00 (nominal).



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Dr. A. A. Hendrickson, chief bacteriologist, in one of the laboratory control rooms used in the cultivation of vigorous cultures.

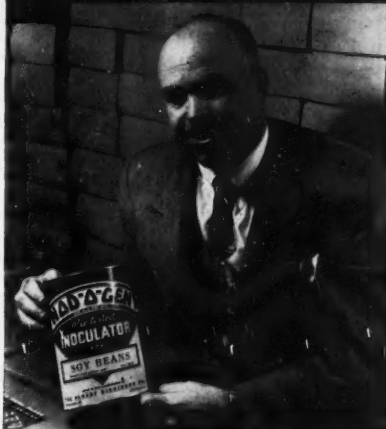


Section of the curing room showing bins that contain special humus inoculated with NOD-O-GEN bacteria awaiting the results of the pre-testing.

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Dr. A. A. Hendrickson, inspecting some of our patented bacteria growth tanks. Another step in the rigid pre-testing program.



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edge regarding animal nutrition, and the shifting supplies of high-protein and other feeds.

The task of rationing out this feed historically has been done by the free price system. Under this system everyone who wanted to buy feed at the going price could find a seller and everyone who wanted to sell could find a buyer. Thus the farmer had a steady supply of feed, the processor had a ready market, the livestock were fed according to the best judgment of the farmer, and the con-

sumer got his meat without interruption.

With fixed prices all this is changed. In a country which has established artificially low ceiling prices, shortages will occur in the midst of plenty. The supply of high-protein feed per animal unit for the present feeding season is abundant. The difficulty in obtaining soybean oil meal is a result of price fixing. Trying to prevent inflation by holding down the price of soybean meal is like trying to prevent diarrhea with adhesive tape.

Factors Affecting Price

The price of soybean oil meal is closely associated with the price of soybeans and of soybean oil. It is closely associated with the prices of competing feeds such as cottonseed meal, bran, and corn. Soybean meal prices are very sensitive, rising and falling sharply as the price level strengthens and weakens.

TABLE 2

Soybean Oil Meal: Relationship of Various Factors to the Seasonal Price of Soybean Meal in the United States, 1931-1941.

Prices of soybean products	Percentage of variation in price of soybean oil meal associated with variation in various factors.			
	Fall	Winter	Spring	Summer
Soybeans	44	47	70	97
Soybean Oil	55	40	19*	65
Prices of other products				
Corn	49	63	47	68
Bran	57	50	59	87
Middlings	52	54	45	83
Ten livestock products	41	17*	13*	2*
Price level and income				
Price level	70	41	40	52
Nonagricultural income	13*	11*	2*	13*
Supply				
Soybean production	0*	20*	26*	29*
Soybean oil meal production	0*	50	1*	4*

* Not significant.

TABLE 3

Soybean Oil Meal: Percent Change in Price of Soybean Meal With 10 Percent Increase in Various Factors in the United States Seasonally, 1931-1941.

Prices of other products	Percent change in price of soybean oil meal with 10 percent increase in various factors.			
	Fall	Winter	Spring	Summer
Corn	5	5	4	9
Bran	7	4	10	9
Middlings	6	4	8	9
Ten livestock products	16	2	7	0
Price level and income				
Price level	13	7	11	28
Nonagricultural income	11	5	4	25
Supply				
Soybean production	0	-1	-2	-4
Soybean oil meal production	0	-2	-1	-3

Soybean oil meal prices are not closely associated with prices of livestock, which respond to a different set of economic forces. Nor does the price of soybean meal fluctuate closely with changes in its production; it is the production of all high-protein feeds combined which tells the tale. The high-protein feeds can be substituted for one another within rather wide limits; if one is scarce others can be used and the price of the scarce item rises only slightly.

There are seasonal differences in the effects of these factors. In the fall, the price level is the most important factor. In the winter, several factors are important, including the price level, prices of competing feeds and the production of soybean meal. During the spring and summer, prices of competing feeds appear most influential.

Factors affecting prices of soybeans, soybean oil meal and soybean oil are measured and described in detail in Purdue Station Bulletin 538, Prices of Soybeans and Soybean Products.

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IOWA FIRM EXPANDS

The North Iowa Cooperative Processing Association, Manly, Iowa, will begin construction at once on a \$1,500,000 solvent-type processing plant in Mason City, Iowa.

The plant, according to Manager Glenn Pogeler, will include a 350,000-bushel concrete elevator with truck and carload dumps and a 1,200-bushel-per-hour grain dryer.

Other buildings will consist of an office, boiler plant, warehouse, and a preparation and extraction building. All will be of fireproof construction.

Engineers in charge of the project are R. W. Booker and Associates of St. Louis, Mo.

The new plant will have a capacity of 150 tons of soybeans a day and is scheduled to be completed by Mar. 1953. The capacity will be 2 million bushels a year compared with present capacity of half a million at the firm's screw press plant at Manly.

Hexane will be the solvent used.

The Association is headed by Earl M. Dean, Mason City, president; C. D. Daniels, Garner, vice president; and Earl L. Dickinson, Mason City, secretary-treasurer.

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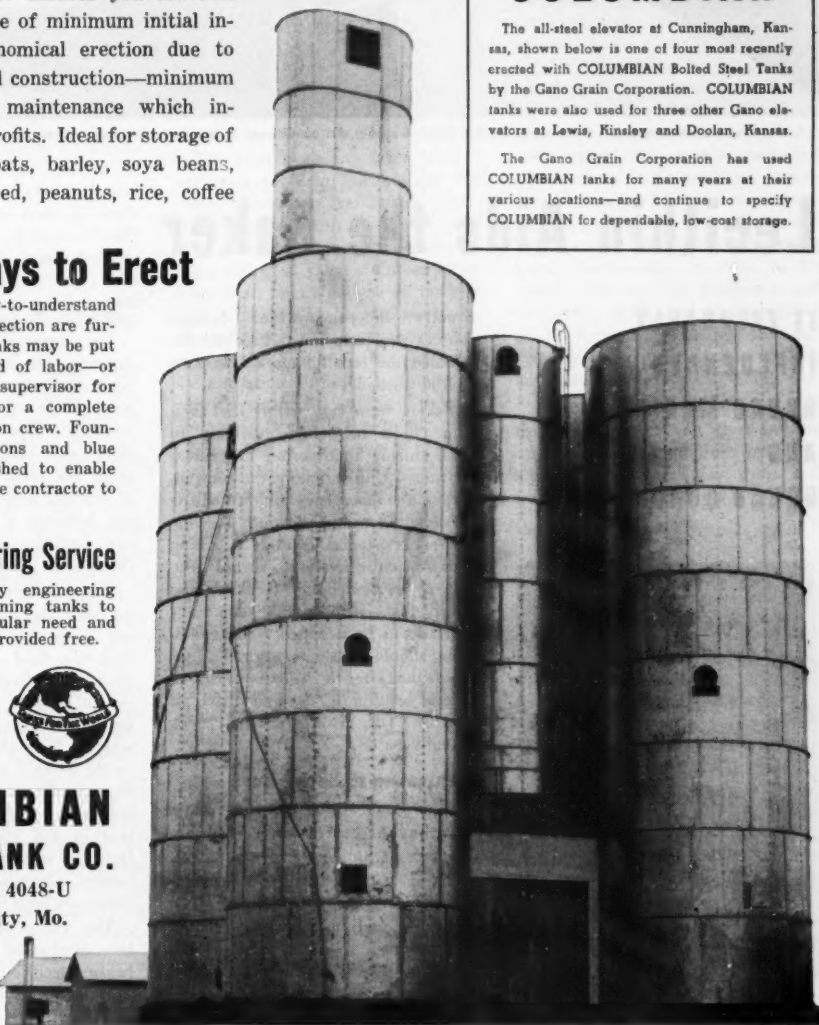


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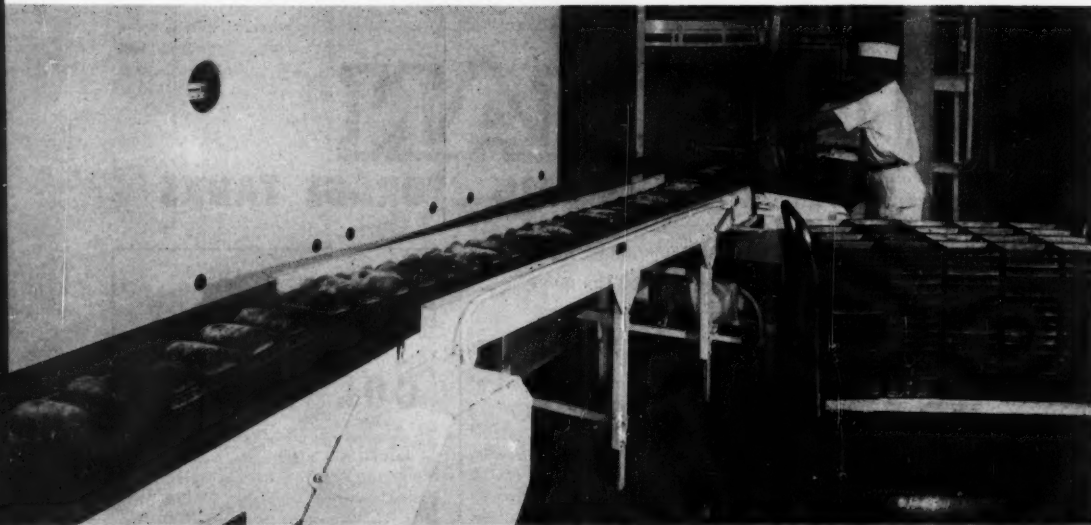
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The Gano Grain Corporation has used COLUMBIAN tanks for many years at their various locations—and continue to specify COLUMBIAN for dependable, low-cost storage.



More and more bakers realize the value of lecithin as an emulsifier and conditioner in yeast-raised doughs.—Photo courtesy Bakers Weekly.

Lecithin Aids the Baker

**IT FAVORABLY
INFLUENCES
BREAD MAKING
AND
BREAD QUALITY**

By JOS. EICHBERG

American Lecithin Co., Inc., Woodside, N. Y.

IN VIEW of the concern being currently expressed over the use of chemicals in foods, one would expect the baking industry to explore to the fullest possible extent the properties of soybean lecithin—a wholesome, natural food concentrate with powerful emulsifying activity. The impression persists, however, that the utility of lecithin has not yet been given the fullest consideration it deserves by the industry as a whole.

During World War II millions of pounds of lecithin, made from soybeans, were used by the bakers of America in a variety of products, chiefly in bread. The foresight of soybean processors had made this

country independent of foreign sources which up until 1935 had dominated the lecithin market here as well as abroad.

Bakers were very happy that lecithin could be made available to them during that period of critical shortages. Unfortunately, the very nature of the emergency and the efforts of some sellers in following "the line of least resistance" caused the baking industry collectively to regard lecithin as an "extender" or shortening saver, that is to say, a temporary measure to be dropped when conditions should return to normal. Thus it was that after the war the consumption of lecithin in baked goods fell off sharply. The growth had not been soundly based.

Returning to Lecithin

Today, more and more bakers are returning to the use of lecithin in yeast-raised doughs with an understanding of its real value as an emulsifier and conditioner. Lecithin, having these qualities and costing about half as much now as during and immediately after World War II (which places it in the same price range as lard), is being used with more ad-

vantage to the baker than ever before.

The production of lecithin in conjunction with the degumming of soybean oil has continued to show phenomenal growth in recent years thus assuring a dependable supply for the more important uses. There is still room for large additional recovery of lecithin, and the soybean processing industry is prepared to install new facilities in existing plants as conditions justify.

While bakers are generally familiar with the appearance and working properties of commercial lecithin (the fluid grade contains about 65 percent lecithin and 35 percent soy oil), many do not realize that the performance of such basic ingredients as flour and milk is influenced by the lecithin naturally contained in these products. It is not surprising that very small amounts of added lecithin will produce significant effects and will tend to iron out irregularities otherwise resulting from variations in flour or milk.

The value of lecithin has often been overlooked or minimized simply because lecithin does not bring about a dramatic result. But while perhaps not sensational, in the case of bread

for example, lecithin benefits are none-the-less solid and certainly are evident. Some of the best results are being obtained with a combination of lecithin and mono- and diglycerides, especially for softness and freshness retention. In this instance, the glyceride emulsifiers are thought to affect particularly the starchy portion and the aqueous phase and the lecithin to act on the gluten.

Effect on Gluten

The favorable influence of lecithin on the ductility of gluten was observed scientifically many years ago. Lecithin possesses a penetrating power and an ability to spread over moist surfaces not found in ordinary oils and fats or shortenings and is therefore especially effective in lubricating the gluten strands; at the same time it causes the shortening to be more uniformly distributed and it functions as an emulsifier.

This effect of lecithin on the gluten conditions bread dough thereby increasing the mixing tolerance and neutralizing extremes both of weakness and strength of different flours. With strong winter wheats lecithin tends to enhance the elasticity of the dough; with flour from spring wheat lecithin exerts a mellowing action to shorten the high extensibility.

Excellent results in most yeast raised doughs will be obtained with 0.1 percent to 0.2 percent (based on the weight of the flour) of commercial soybean lecithin. In some foreign countries larger amounts are used but this is due to the poorer quality of the flour. Fluid lecithin may be added directly to the dough but better incorporation is likely to be achieved if a carrier is used: for example, as lecithinated flour or as an emulsion or in admixture with shortening, etc.

Lecithin doughs are usually drier and less sticky even with increased absorption. Consequently, lecithin doughs are easier to handle, need less dusting flour and machine more satisfactorily. Indeed, when lecithin is used it is often very advisable to increase absorption up to 2 percent for best results. Lecithin is a valuable addition to hearth breads as well as pan bread and imparts elasticity to doughs relatively low in moisture.

Because lecithin reduces stickiness it is possible to operate with doughs that are slackier, yet not sacrifice

ease of handling through make-up machinery. Why should lecithin make doughs drier-feeling? One answer lies in the particular emulsifying properties of lecithin whereby the water that would otherwise be in a "free" state in the dough is converted into an emulsion with the shortening (which would ordinarily repel the water) and the other ingredients and thus becomes "bound." It is also possible that the lecithin promotes formation of a thin fatty film over the surface of the dough thereby reducing stickiness.

In the case of biscuit doughs, also, the modifying effect of lecithin on the gluten tends to equalize variations in the strength of wheat flours; furthermore, a stronger flour in a lecithinated dough is tempered so as to turn out a more tender biscuit which resembles the product made from a weaker flour. A similar effect may be noted with high extraction flours.

The biscuit manufacturer faces a stickiness problem but not for the same reason as the bread baker. Stickiness in biscuit doughs is quite often caused by high percentages of shortening and sugar or other sweet ingredient. Sticky doughs do not run well on modern high speed machines, especially machines such as cylindrical cutters. Hence, there followed an alteration in older formulas to conform to the limitations of the machine, with a sacrifice in quality. The addition of lecithin permits a richer dough to be run at high speeds without sticking to dies and belts. Less time is lost and fewer "cripples" develop. This is another instance which shows how very small amounts of lecithin can be used to produce baked goods of better quality (and lecithin costs less than vegetable shortening).

As a Softener

Softness in bread is a desirable characteristic—up to a point. The trend towards "super-soft" bread during the past few years should not be allowed to over-shadow other vital aspects of bread quality. The bread must not only pass the "pinch test" but must also appeal to the eye and satisfy the palate. Lecithin is not a "softener" in the extreme sense and if a very soft loaf is desired lecithin should be used in conjunction with mono- and diglycerides or "polyoxy" compounds, in-so-far as then existing standards allow.

Bread made with lecithin will, however, retain its freshness somewhat longer. A number of reports show that staling is slowed down by lecithin because the moisture is better emulsified and "wrapped up" in films of shortening, the shortening spreads more completely through the dough making the bread more tender, changes in the starch-gel and gluten structure of the crumb are retarded and the anti-oxidant activity of the lecithin guards against off-odors (rancidity). The bread with lecithin will show more compressibility than the control, days after baking.

The shortening itself has important functions with regard to loaf volume, tenderness and shelf life, and in every respect shortening performs more efficiently when lecithin is present in the dough. Lecithin is probably nature's prime emulsifier, increasing the spreadability of fats and oils so that moist surfaces and larger areas are covered. This may be described as an effect (reduction) on "interfacial" tension. All types of shortening, in the plastic as well as the liquid state, show greater lubricating value when lecithin is added to the dough, with resulting tenderness and uniformity of finished product. A fat in the presence of lecithin will mix speedily and completely and will do an all-around better shortening job.

Accordingly, bread made with lecithin has a more tender crust and the appetizing eating qualities of extra-rich bread; it has a fine grain and texture and a symmetrical appearance



JOS. EICHBERG

due in part to more uniform oven spring. The crumb appears somewhat whiter due to the finer cell structure.

These lecithin benefits the baker can enjoy, at no extra cost, due to the low price of lecithin—in fact, the handling of slacker doughs of higher absorption means a saving in material as well as machine costs.

It is important to remember that lecithin works in several ways to promote an essential baking objective—the maintenance of uniformity. At the very outset, lecithin tends to neutralize extremes of weakness and strength in the flour and to increase the mixing tolerance; it makes doughs drier and reduces stickiness, thereby cutting down on variables during make-up. Uniformity is aided also, as a result of the better blending of ingredients, and the more complete and even dispersion of the shortening.

What is true of bread applies to the use of lecithin in other yeast

raised doughs, such as buns and sweet goods. Where higher percentages of shortening and sugar are contained in the formula, slightly more lecithin should be used, for instance 0.25 percent lecithin (figured on the flour) in sweet doughs. Bakers are also using lecithin to good advantage in icings and for other special applications.

Whether or not one sympathizes with the present furor over “chemicals” in foods, the existence of the problem must be recognized. Lecithin is not a “chemical” but a natural extract, not merely edible but a substance of great physiological value. There is, indeed, reason to believe that the lecithin used in bread may enhance the nutritive value to the extent it assists in assimilation and metabolism. In short, lecithin is a desirable addition nutritionally, as well as a valuable adjunct in the production of baked products of uniformly good quality.

commercial area lies in that part of the world for which recent reports are incomplete or unavailable. Thus, at best, any current estimates of world production may be questioned. However, a reasonably reliable estimate can be arrived at for the non-communist area of the world. For 1951, this estimate is placed at 316.0 million bushels compared with 332.9 million in 1950 and 87 million prewar.

The decline in world production from 1950 is more than accounted for by the shorter crop in the United States—280.5 million bushels against the record 299.3 million produced in 1950. Likewise, the sharp increase from prewar is explained largely by the rapid expansion in the United States from a prewar average of 56.2 million bushels to around five times that volume in 1951.

Production in China and Manchuria is believed to have improved in the past two years. Output in Japan increased from 12 million bushels in 1950 to 16 million in 1951, attaining the highest level since 1925. Other increases from 1950 were reported for Canada (with a record crop of 4.4 million bushels), Indonesia, Brazil and some minor producing areas.

A sizable volume of Manchurian beans and oil was sent to Western Europe in 1951. Total shipments in bulk cargo through the Suez Canal amounted to over 19 million bushels, bean equivalent. In addition shipments of beans and oil also were made with other cargoes.

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ANDREWS HEADS POINT 4

Stanley Andrews, director of the Office of Foreign Agricultural Relations of the U. S. Department of Agriculture, was nominated by President Truman to be head of Point Four (Technical Cooperation Administration). His nomination was confirmed by the Senate Apr. 24.

Andrews succeeds the late Harry G. Bennett, who was killed in an airplane crash some months ago. He is a former Arkansas newspaper editor, and served as chief of the Food, Agriculture and Forestry Route for the military government of Western Germany during the airlift.

He appeared on the American Soybean Association convention program in 1949.

New World Fat Record Set in 1951

The world's production in 1951 of fats, oils, and oilseeds, expressed in terms of fat and oil equivalent, is estimated at 25.8 million short tons. This is a new record, according to the Office of Foreign Agricultural Relations, U. S. Department of Agriculture. While this large volume of output represents an increase of 8 percent from 1950, and nearly 13 percent from prewar, perhaps its greatest significance is that the world's per capita supply has been restored to about the prewar level for the first time since World War II.

World exports of fats, oils, and oilseeds, also in terms of oil equivalent, are estimated at 6.3 million tons. While this tonnage reflects an increase of 3 percent from the estimated volume exported in 1950, it is 4 percent below prewar.

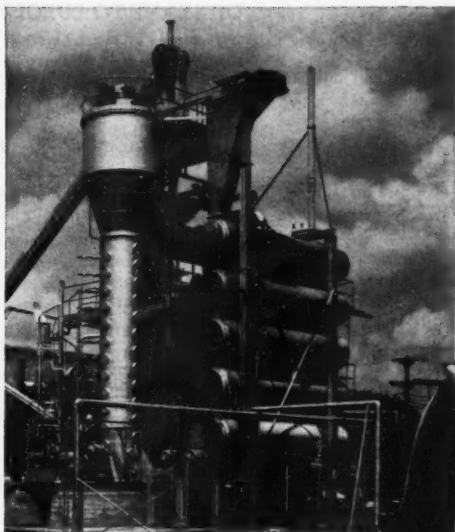
Exports in 1952 probably will decline a little from last year assuming that the present degree of international political tension continues. However, further changes in price levels, the effects of weather on production, and other factors may cause exports to vary materially from the tentative forecast of 6.1 million tons.

The year 1951 was one of relative calm in comparison with 1950.

Whereas the outbreak of war in Korea in June 1950 had given rise to a highly-active fats and oils market, causing prices to spiral upward, the year 1951 saw prices reach their post-Korean peak in the first quarter, followed by a moderately steady decline that continued to the year's end.

Soybean production in 1951 is now estimated at 653.4 million bushels or 12.8 million bushels less than the record 666.2 million (revised) of 1950 but 189.6 million bushels above prewar. Soybeans are grown on some scale in a great many countries throughout the world, but there are relatively few countries in which soybeans are of real commercial importance. About 90 percent of the entire crop is concentrated in the United States and China (including Manchuria). Japan, Korea, and Indonesia are next in the order of importance but together account for only 5 percent of production. Canada, the Soviet Union, and Brazil are the only other countries which produce as much as 1 million bushels.

Official production records generally are lacking for countries where soybeans are of minor commercial importance and more than half the



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Swift's Sam Hollett Has Retired

Sam D. Hollett, manager of the Swift & Co. soybean mill at Frankfort, Ind., and one of the pioneers of industrial soybean processing, has retired on pension after 37 years of service with the company.

Company executives from Chicago and employees in the local mill attended a retirement party for Hollett recently in the Moose lodge hall.

Hollett went to Frankfort in 1945 when construction of the soybean mill was started. It was the second Swift mill he had managed during construction and initial operation, the first being at Fostoria, Ohio, where Hollett served before going to Frankfort.

"I regret leaving the soybean business just at this time, for I believe that despite the marvelous progress that has been made in the last 10 years, the next decade will see even greater advances," Hollett said.

He recently completed a new home at Gulfport, St. Petersburg, Fla., and will go there immediately after his retirement.

In 1915, Hollett began his career with Swift & Co. He began as a materials checker in the Chicago plant, and then was made assistant head of the supply department. In 1917 he was transferred to the feed department.

Hollett was among the first to be associated with the soybean business when Swift entered that field. He was appointed sales manager at the Champaign, Ill., mill in 1939, and a year later was appointed manager at Fostoria. Under his supervision, the Frankfort mill has been recognized as one of the outstanding in the country among those that use the solvent extraction process.

H. B. (Hank) Parker, assistant to



HOLLETT

the head of the general oil mill department of Swift & Co., Chicago, has been appointed manager of the Frankfort soybean mill to replace Hollett.

A native of Chicago, Parker joined Swift & Co. as a messenger in 1936 while still attending school, and three years later began his career in oil mill operations at Champaign, Ill. He later was associated with the Swift mills at Fostoria and Frankfort.

Parker saw three and one-half years duty in the Pacific and other war zones with the Coast Guard during World War II. He is married and has three children.



PARKER

— s b d —

HONOR INDIANIAN

Dr. G. H. Cutler, assistant chief and professor of agronomy for 26 years at Purdue University, Lafayette, Ind., was honored at the tri-state meeting of soybean processors held at Purdue Mar. 25 and 26.

High tribute was paid to the marked success his efforts have achieved in helping to provide new yellow-seeded varieties suitable alike to farmers and industry. Recognition was given to the development of such varieties as Mandell, Patoka, Gibson, Earlyana, Wabash and Perry which have helped to extend the production of soybeans to all parts of Indiana. Thus Indiana has become one of the leading states in soybean production.

ON LEAVE TO EUROPE

Two men in the University of Illinois College of Agriculture have been granted one-year leaves of absence to work on agricultural production problems in Europe. They are Hadley Read, extension editor, and J. C. Hackleman, crops specialist.

The men will join a 15-man team of specialists from this country who will help Western European countries boost their farm output in a program carried on by Mutual Security Agency (formerly ECA). Paris will be headquarters for the group.

Read expects to teach agricultural information methods, help organize training sessions in using press and radio for European farm advisers; and to turn out various information pieces urging better farming methods.

Hackleman expects to work on increasing production of wheat, oats, barley and possibly soybeans in Italy, France, The Netherlands, Norway, Sweden and Western Germany. Some seed certification work may be also be included.

Both men left for Paris early in May after an orientation period in Washington. They were accompanied by their wives, and Read by his three children.

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OIL MILL MEN MEET

The annual convention of the Tri-States Oil Mill Superintendents Association will be held at Buena Vista Hotel, Biloxi, Miss., June 3-5.

Among the addresses on the three-day program will be:

"Cleaning and Processing Soybeans," Thomas Hutchison, West Tennessee Soya Mill, Tiptonville, Tenn.

"A Comparison of Extraction Processes—Hydraulic, Screw Press and Solvent," A. Cecil Wamble, manager Cottonseed Products Research Laboratory, College Station, Tex.

"Factors to Consider Before Converting to Solvent Extraction," N. Hunt Moore, consulting engineer, Memphis, Tenn.

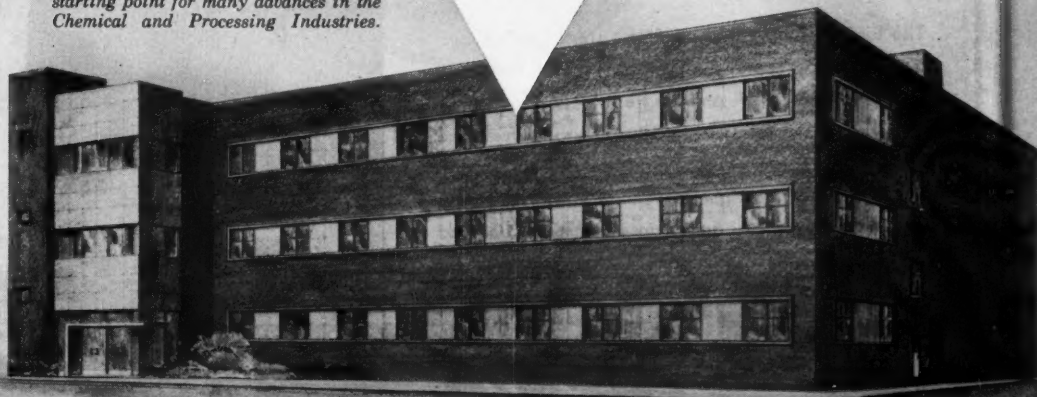
Officers of the Association are M. P. Letchworth, Leland Oil Works, Leland, Miss., president; O. D. Easley, Southern Cotton Oil Co., Memphis, Tenn., vice president; L. E. Roberts, DeSoto Oil Mill, Memphis, Tenn., secretary-treasurer; and Jane Inez Gordon, Woodson-Tenent Laboratories, Memphis, Tenn., corresponding secretary.

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SWIFT PLANS PLANT

Swift & Co. will construct a new solvent extraction soybean mill at Fostoria, Ohio, replacing the present expeller-type unit.

The contract has been let to the Blaw-Knox Construction Co. of Pittsburgh, Pa. Construction is to be completed by the spring of 1953. The present mill will continue in operation during construction of new buildings.

H. S. Byrd, manager, said the new equipment will be able to handle 200 tons of beans daily. Hexane will be the solvent used.

"The most important thing about the new-type mill is that it will produce a higher quality of meal for livestock feed supplement," Byrd said. "The solvent extraction method which we will install was developed after the Fostoria mill was built in 1940. Our objective now is to keep pace with improved methods and increased soybean production."

Newer Swift mills are of the solvent extraction type, Byrd said, and others are being converted.

Construction plans call for a new extraction building 50 by 70 feet, of

steel and corrugated transite. The existing expeller building will be converted to a bean preparation and meal processing building, and will be connected to the extraction building by a covered bridge of similar construction. Equipment to be installed includes a Rotocel extractor, one of the newest types used in the industry.

The present office building will be relocated to make room for the extraction building and to provide more space for trucks during the harvest season.

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ADM IN CHLOROPHYLL

Entrance of Archer-Daniels-Midland Co. into the chlorophyll and xanthophyll industry was announced by T. L. Daniels, president. The Minneapolis firm, one of the world's largest processors of agricultural crops, made public its purchase of the Keystone Chemurgic Corp., Bethlehem, Pa., and arrangements to buy Chlorophyll, Inc., Neodesha, Kans.

At the same time Daniels announced the formation of a new chlorophyll division headed by Donald G. Carpenter.

HAFNER

(Continued from page 13)

unless a marked increase in yields can be achieved.

In closing let me touch on one other factor which might enter into the potential demand for soybean products in years to come. The development of synthetic fibers of great uniformity and increasing availability is threatening to steal away our cotton market. Should cotton lose its position as king of Southern crops, farmers in the South undoubtedly would divert a large portion of their cotton acreage to soybeans. I look for a marked increase in soybean production in Missouri, Arkansas, Tennessee and Mississippi in the years ahead. Thus cottonseed meal might in time be replaced by soybean oil meal to an even larger extent than at present in the feeds of the South.

On the basis of the foregoing I believe an increase in the acreage devoted to soybeans in the U.S. is justifiable in the long range picture and that if the USDA won't grant the added acreage our only recourse is to grow more soybeans on the land available.

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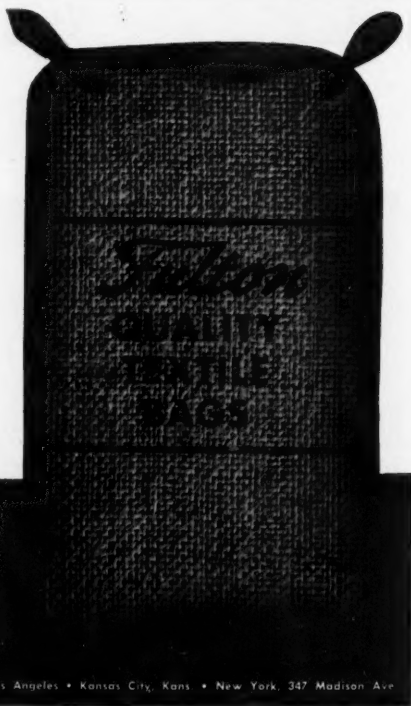


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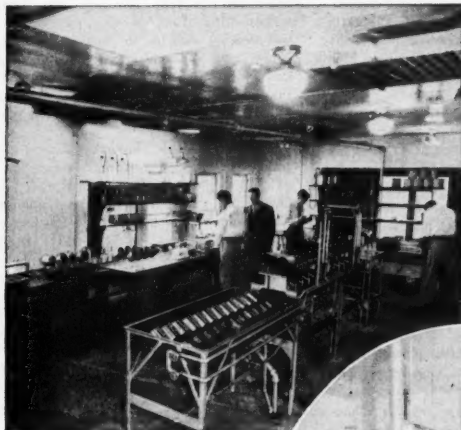
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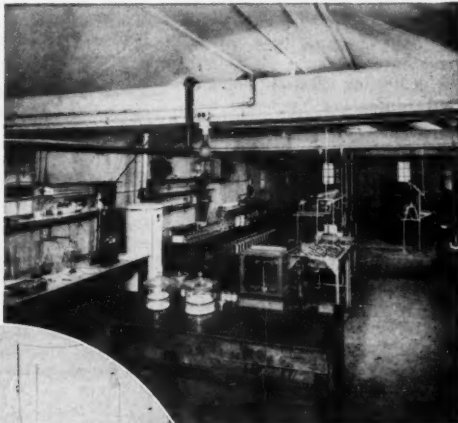
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Soybean Acreage Is Moving Southward

Soybean Digest crop correspondents confirm the U. S. Department of Agriculture forecast of a shift of cotton acreage to soybeans in parts of the South, and some shift of soybean acreage into corn in the Cornbelt. (Labor shortages some places will have a depressing effect on both cotton and corn acreage.)

How great the shift will be depends on the weather from now on. A late season would mean more soys as it has in the past. Planting of soybeans was under way in many parts of the South in late April.

Moisture was generally ample in most places—too wet in some. This tended to delay seeding of small grain.

The present market situation is apparently not having a radical effect on acreage.

Supplies of seed appear ample in most localities. Nearly all reports are that seed is germinating well.

Reports of Digest correspondents follow:

Alabama

H. I. West, Bay Minette, for southwest (Apr. 22): None planted. Probable acreage 95% of 1951. Reduction due to increase in corn acreage. Weather conditions excellent to date. Moisture supply normal. Looks like enough seed. Seed germinating okay.

Arkansas

L. M. Humphrey, Robert L. Dortch Seed Farms, Scott, for Little Rock area (Apr. 21): 2% of crop planted. Probable acreage 110% of 1951. Soybeans taking some cotton acreage. Shortage of field labor—choppers and pickers—makes cotton expensive and hazardous. Weather conditions very favorable up to now. Plenty of moisture. Enough seed of adapted varieties though supply not too large. Seed ger-

minating very good. More Dortchsoys in this area. Dortchsoy 67 will replace S-100.

Paul C. Hughes, Farmers Soybean Corp., Blytheville, for Blytheville area (Apr. 21): 10-20% of crop planted; weather permitting, 80% by May 1. Probable acreage 110-120% of 1951, maybe more. Soybeans replacing cotton. Support price is high enough to get the acreage. Weather conditions too wet. Labor shortage is causing switch from cotton to soybeans. More than enough seed. Germinating good. A few more Dortchsoy No. 2 and less S-100.

Illinois

C. G. Simcox, Assumption, for south Central (Apr. 21): Oats all planted, smallest acreage in years. Wheat sown on bean ground last fall. Largest wheat acreage in years. Probable soybean acreage 90% of 1951. Wheat and corn cutting into soybean acreage. Large corn acreage intended unless adverse weather. Weather conditions wet. About one-fifth plowing done and that plowed too wet. Seed germinating 95%. Few more Adams than last year.

J. E. Johnson, Champaign, for Champaign and adjoining counties (Apr. 22): Nothing to indicate change in acreage. Our area not being influenced by Washington. May be a small decrease with an increase in corn by some farmers. Wheat acreage larger, slight change in the oat acreage over 1951. Do not expect present downward trend of market to be much of a factor. April above normal in rainfall, below normal temperature. Vegetative and small grain growth delayed 10 days. Moisture supply above normal. Labor on farms shortest on record. Farmers will meet situation with family labor, working around the clock and a trend to larger equipment. Seed supply ample. Should be usual high germination and vigor.

Walter W. McLaughlin, Citizens National Bank, Decatur, for Decatur (Apr. 22): Probable acreage 90% of 1951. Corn might replace some beans as at present prices corn is more profitable. Wet and backward spring. Oats planting behind schedule.

Albert Dimond, Lovington, for Moultrie

County (Apr. 23): Probable acreage 90% of 1951. Principally corn will cut into bean acreage with normal weather. Failure of beans to make \$3 dampened enthusiasm—but corn has been weakened too. Little winterkilling of wheat. Most oats in. Cold wet weather such as we have been having could make difference in soybean acreage if it continues all during May, which is improbable, but it could happen. Hawkeye and Adams seem to pick up a little more every year.

Russell S. Davis, Clayton, for west central (Apr. 24): Probable acreage 100% of 1951, higher than USDA's Mar. 1 forecast. Some oat seeding may be abandoned and planted to soybeans. Temperatures average, but too wet for field work. No extensive changes in varieties.

R. B. Pike, Pike Hybrid Corn Co., Pontiac, for north central (Apr. 24): Probable acreage same as 1951. Farms in our area planting on about same acreage and soybean sales equal to last year. Lots of rain at this time but farm work pretty well caught up. Moisture supply above normal. Seed germinating very good. Adams and Hawkeye most popular.

Robert W. Weitzer, Valley Farms Co., Carrollton, for west central (Apr. 23): Probable acreage 90% of 1951. Lower bean price tends to throw more acreage to corn. Weather conditions warm and wet. Adams replacing Hawkeye and Lincoln.

Indiana

K. E. Beeson, Indiana Corn Growers Association, Lafayette (Apr. 21): Delays in sowing oats may make a little more acreage for soys but price and need for corn will cause farmers to go to corn more than soys. Decline in price may depress acreage slightly. Indiana has been rather wet during April. Surplus of certified seed. Germinating fine.

George K. Black, J. A. McCarty Seed Co., Evansville, for southwestern (Apr. 26): Probable acreage 90-95% of 1951. Corn cutting into soybean acreage. Weather cool, wet. Seed germinating good.

Chester B. Biddle, Remington, for northwest (Apr. 23): Probable acreage 110% of 1951. Normal oats crop seeded. Contin-

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ued wet could cause increase in bean acreage at expense of corn. Plowing under way. Ground is wet. Some water standing. Plenty of seed, germinating good.

J. B. Edmondson, Danville, for central (Apr. 23): Probable acreage 90 to 95% of 1951. Corn crowding soys appreciably. Grass farming agitation being felt. Farmers not happy about price, especially those holding beans. Situation normal as to weather. Farmers generally resigned to restricted labor supply and have adjusted rotation accordingly. Soys will suffer their share in acreage. Farmers slow in expressing needs for seedstock. Seed germinating generally good to above average. Hawkeye and Lincoln will account for 95% of acreage.

Ersel Walley, Walley Agricultural Service, Fort Wayne, for northeast Indiana and northwest Ohio (Apr. 25): Probable acreage same as 1951. Intended acreage dictated by labor situation. Some fields intended for oats might be put to beans. Weather conditions generally good except too much rain. Seed germinating mostly okay.

Iowa

W. Wayne Olson, Okoboji Hybrids, Milford, for Dickinson County and immediate territory (Apr. 22): Probable acreage 25% less than 1951, less than expected. Sudden slump in prices greatly affects decrease in acreage. Weather cold, damp and still frost in some spots Apr. 21. 75% of oat crop planted but working conditions tough. Moisture supply above normal. Majority

seed samples germinating 95%. Few samples in high 80's. Large percentage will be planted to new Blackhawk.

Kansas

H. L. Collins, agricultural statistician in charge, Topeka: Sharp increase expected for soybeans and indicated acreage of 668,000 largest on record. Rather sharp decreases for oats, barley and sorghums. Timely rains and ample soil moisture.

E. A. Cleavinger, extension service, Kansas State College, Manhattan, for eastern (Apr. 18): Probable acreage 110% of 1951. Weather conditions good. Seed germinating good.

Louisiana

W. M. Scott, Tallulah, for northeast (Apr. 23): 20% of crop planted. Probable acreage 20% less than 1951. Added pasture land and cotton cutting out some bean acreage. Season late as cool weather hangs on. Moisture ample to excess. Labor short. Machinery adequate. Seed germinating excellent. If cotton planting gets off to late start it may increase soybean acreage.

Minnesota

John W. Evans, Montevideo, for southwest central (Apr. 25): Only small part of small grain planted. 10% increase in soybean acreage as compared with 1951. Weather too wet. Small grain seeding late for third consecutive season. Increased delay will shift some small grain acreage to soybeans, also some corn acreage being

shifted. Seed germinating best in years. Increase of Blackhawk variety.

R. E. Hodgson, Waseca, for south central (Apr. 21): Acreage will depend on weather, possibly an increase. Late season may cut grain seeding. If so, beans may replace part of it. Frost still found in many places. Heavy soil too wet to work. Labor and machinery will be stretched a little further to plant usual acreage. Seems to be plenty of seed so far. Germination fair. Blackhawk going on larger acreage.

C. F. Marshall, Honeycomb Products Co., Mankato, for south central (Apr. 21): If we get a late season it is my feeling the 9% increase forecast by USDA Mar. 1 could be 15%. With normal season it is my feeling 11% will be increase. Land very wet. Pastures and wheat turning green. Certified early varieties in good supply. Seed germinating good. We shall have much larger acreage of Blackhawk, good bean for here.

Harold E. Grow, Farmer Seed & Nursery Co., Faribault, for southeast (Apr. 25): Plans for about same acreage as 1951. Planting of other crops such as oats and barley late. May increase soybeans. Moisture ample. Seed germinating very good. Large increase in Blackhawk, decrease in Monroe and Manchu.

Mississippi

H. H. Huddleston, Lamont, for Bolivar and Washington Counties (Apr. 23): Possibly 2 or 3% planted. Probable acreage 200% of 1951. Doubtful cotton and corn

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land of last year going into soybeans. Weather rather wet for all planting to this date, but have time for proper planting even now. We usually try to finish planting cotton by May 1 and then follow with soybean crop.

Missouri

J. Ross Fleetwood, extension specialist field crops, University of Missouri, Columbia (Apr. 21): Less than 5% planted. Probable acreage up 15% plus, somewhat due to loss of wheat in Missouri River valley. Weather conditions very good now but about two weeks late. More Wabash than last year.

Carver Brown, Laddonia, for northeast (Apr. 24): Probable acreage 100% of

1951. Very few oats have been planted because of continuous wet weather. Large portion of oat ground will go to beans. Practically no field work of any kind has been done because of wet weather.

O. H. Acom, Wardell, for southeast (Apr. 21): Planting just starting this week. Probable acreage 15% over 1951. Cotton acreage diverted to soybeans. Weather fair. Land preparing in good shape, about 10 days late. Too much rain at present. Seed germinating 85% or better. More Ogden than early varieties. Ordinarily late varieties yield better.

Nebraska

Harry E. Wiysel, Fremont Cane & Meal Co., Fremont, for east central (Apr.

24): Probable acreage about same as 1951. We have had a cool wet spring and this should increase bean plantings. Weather conditions too wet for field work. Seed germination excellent.

New Jersey

John E. Baylor, assistant extension specialist farm crops, New Brunswick (Apr. 24): Acreage probably up 5-10% over 1951. Soybeans being grown on part of New Jersey potato acreage. High price for corn makes this crop more favorable than beans on part of New Jersey acreage. March rain above normal but moisture not excessive. Seed supplies of recommended varieties tight.

North Carolina

Irvin Morgan, Morgan Oil & Refining Co., Farmville, for eastern (Apr. 22): Probable acreage about same as 1951. Weather conditions and moisture supply normal. Apparently enough seed of adapted varieties.

North Dakota

C. J. Heltemes, agricultural statistician, Fargo (Apr. 21): Probable acreage up 10%. Soybeans may be replacing corn to small extent. Season a little late in soybean section. Moisture supply very good. Labor probably will be on short side.

Ohio

Calvin Heilman, Kenton, for Hardin, Wyandot and Marion Counties (Apr. 25): Probable acreage 98 or 99% of 1951. Corn would cut into soybean acreage if labor were available. Lack of labor more discouraging to corn than low market for beans. Much oats already planted so little oats ground will be diverted to beans. Some winterkill of clover will cause that acreage to go to beans. We had one week of farming weather in April. Ground so wet now will be no more work this month. Ground and subsoil saturated. Little surplus of seed available if delayed corn planting diverts corn acreage. Some increase in Monroe variety.

D. G. Wing, Mechanicsburg, for west central (Apr. 26): Probable acreage 85-90% of 1951. Corn will be increased more than beans. Slow market in beans will lower acreage planted. Plowing all done in our section. Some ground has been worked down to plant. Wet all week but looks as if we can work ground by May 1. Seed germinating okay.

Lewis C. Saboe, University of Ohio, Columbus (Apr. 22): Probable acreage 95-100% of 1951, perhaps a little more than Mar. 1 forecast. Wet oat seeding conditions may have diverted some acreage to soybeans. Unfavorable corn planting time may increase soy acreage. Moisture supply adequate. Seed germinating fair to poor.

G. G. McIlroy, Irwin, for west central (Apr. 22): Probable acreage about same as 1951. Tendency to replace some soybean acreage with corn. No oats and little wheat. Fields will be planted to beans. Weather conditions favorable to date. Oat seeding earlier. Hawkeye and Lincoln about equally divided. Few Monroe.

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COUNTY AND STATE

(Please Print) 67

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BAGPAK DIVISION

Kenneth E. Schultz, Delphos Grain & Soya Products Co., Delphos, for northwest (Apr. 26): Probable acreage 95% of 1951. Corn possibly cutting into soybean acreage. Market too low according to farmers. Weather preventing some oats from being sown. Weather wet but not excessive in most sections.

Virginia

Henry M. Taylor, Department of Agriculture, Richmond (Apr. 21): Probable acreage 98% of 1951. Corn cutting into soybean acreage. Weather conditions favorable. Moisture supply good.

West Virginia

R. J. Friant, extension agronomist, Morgantown (Apr. 21): Soybeans used in this state principally as emergency hay crop. Weather about normal. Shortage of farm labor and machinery may cut acreage.

Ontario

R. H. Peck, River Canard, for southwestern (Apr. 22): Probable acreage 110% of 1951. In some areas corn may take small amount of acreage. Continued cold wet weather may result in more beans planted. At present ground drying nicely.

HEADS OILS BUYING



DAVID J. BUNNELL

Appointment of David J. Bunnell as general manager of the buying division, Lever Brothers Co., was announced by Jervis J. Babb, president. The appointment is effective immediately.

Mr. Bunnell, who will be in charge of the buying of fats and oils at the New York headquarters of the company, joined Lever Brothers Co. in 1948 and has been located at the Chicago office of the buying division.

He has had more than 30 years' experience in the fats and oils business, having started as a buyer for the Crawfordsville Seed Co. of Crawfordsville, Ind., in 1920. Prior to joining Lever Brothers, he was president of the Northwest Linseed Co. of Minneapolis, and before that was vice president of the Central Soya Co., Inc., Ft. Wayne, Ind.

Bunnell succeeds Emerson G. Morse, resigned.

— b d —

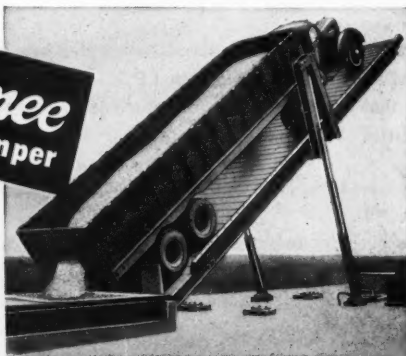
NO "RESEAL" PROGRAM

The U. S. Department of Agriculture has announced there will be no "re-seal" loan program for 1951-crop corn, wheat, barley, rye, oats, grain sorghums, dry edible beans, rice, soybeans, flaxseed, winter cover crop seed, and hay and pasture seed under price support. Also, it was announced that none of the "re-seal" loans maturing this year will be extended.

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- Sizes—40', 45' and 50' Platforms. Other sizes special.
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Evidence of KEWANEE performance and economy is overwhelming. It is substantiated by successive repeat orders from outstanding firms who have installed them in all their plants.

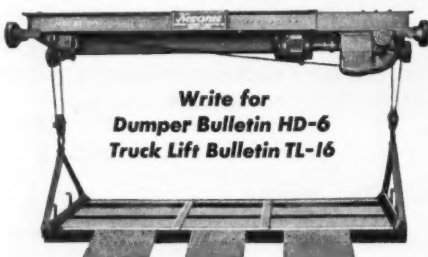
One elevator reports unloading over 1,000,000 bu. of grain in one month's

This New KEWANEE Pitless Model cuts foundation costs to a minimum.

operation with a two man crew, averaging over 100 trucks each working day.

Every Trucker and Grower is a real booster. They appreciate "no long waiting in line" in busy harvest seasons and they tell others. It attracts new customers, widens your territory and expands your volume.

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PUBLICATIONS

Soys Important in Himalayan Hills

The soybean crop attracted considerable attention in India about 20 years ago. A number of experiment stations started the cultivation of this crop to meet the expected demand for it. The market for the bean, however, never opened up, and to this day the soybean remains a somewhat neglected crop in India.

The exception is in the Himalayan hills where the climate is temperate as it is in the soybean sections of the U. S. and Manchuria. Here the crop is important. It is a staple pulse crop in Kumaon and Garhwal where it is grown under the name of *bhat*.

Under the tropical temperatures of the plains it apparently is less dependable and its yield varies from year to year.

The inhabitants of the Himalayan districts are used to eating the bean but the plains people have not learned to relish it. The Indian Research Fund Association concluded after experiments that the soybean is not any more nutritious than other pulses. This fact, coupled with its rather unpalatable taste, has been responsible for most experiment stations losing their interest in the crop, even though it is a bigger yielder than mung beans.

However, a collection of samples of soybeans was started in 1935, and this collection, now about 112 strains, has been maintained at Kanpur. Only one of these, Type 101, which ripens in about four months, is

being grown on a commercial scale.

A part of the work on soybeans is being done at the Tarikhet Research Farm in the Almora hills. Here a satisfactory early variety that will mature within 90 days is being sought for use in a soybean-wheat rotation. Such a rotation would increase total production as compared with growing wheat after fallow, and it would also help maintain soil fertility since the soybean is a legume.

Being an established crop of the Indian hills, and superior to other pulses in yield and ease of harvesting and threshing, the soybean is likely to become popular in a double cropping scheme.

SOYA BEAN. By T. R. Mehta, Ag-

riculture and Animal Husbandry (India). May 1951. Vol. 1, pages 6-10.

Value of B-Vitamins

The addition of riboflavin, calcium pantothenate and niacin to a basal ration of yellow corn, Expeller soybean oil meal, fish meal, meat and bone scraps, cottonseed meal, alfalfa meal, a B-12-aureomycin feeding supplement, vitamin A and D oil and a simple mineral mixture for weanling pigs increased the average daily gain by 10 percent, reduced the feed per 100 pounds gain by 13 percent, and produced hogs for market about nine days sooner in experiments at Purdue University.

Single additions of either riboflavin or calcium pantothenate to this high quality pig ration failed to improve growth rate markedly and exerted only a slight favorable effect on feed efficiency.

THE SUPPLEMENTARY VAL-



Farm in Himalayan hills near Kashmir. Photo by Government of India Information Services.

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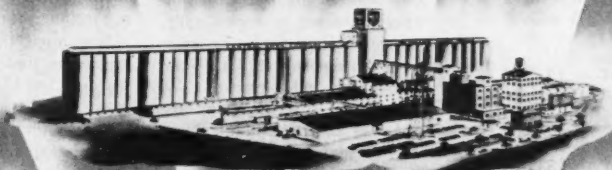
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UE OF RIBOFLAVIN, CALCIUM PANTOTHENATE AND NIACIN IN A PRACTICAL MIXED ANIMAL AND PLANT PROTEIN RATION CONTAINING B-12 AND AUREOMYCIN FOR WEANLING PIGS IN DRYLOT. By J. E. Briggs and W. M. Beeson, Purdue University. *Journal of Animal Science*, Nov. 1951, Vol. 10, No. 4, pages 813-819.

Use of Soybean Sterols

Work at the University of California indicates that the addition to the chick's diet of mixed soybean sterols and of purified sitosterols in the presence of cottonseed oil and cholesterol causes markedly lower plasma and liver levels of cholesterol than the addition to the diet of a mixture of cholesterol and cottonseed oil alone.

The possibility is advanced that one or more of the constituents of the mixed soybean sterols interferes with the absorption of cholesterol.

EFFECT OF SOYBEAN STEROLS IN THE DIET ON PLASMA AND LIVER CHOLESTEROL IN CHICKS. By D. W. Peterson, division of poultry husbandry, College of Agriculture, University of Berkeley. *Society of Experimental Biology and Medical Proceedings*. Vol. 78, Oct. 1951, pages 143-147.

Fat Content of Corn

There were no significant differences in gain or dressing percentage in two lots of pigs at the University of Illinois fed yellow corn containing 4.7 percent fat and 9 percent crude protein, and corn containing 6.4 percent fat and 10.8 percent crude protein, with a mixed supple-

ment including soybean oil meal on rye pasture.

The total feed eaten per 100 pounds of gain was practically the same for each group, but the pigs receiving the higher fat and higher protein corn consumed 27 percent less mixed supplement per unit of gain.

VALUE OF LOW- AND HIGH-FAT CORNS FOR FATTENING HOGS. By S. W. Terrill, J. G. Moffitt, J. L. Krider, E. B. Earley and Sleeter Bull, University of Illinois. *Journal of Animal Science*, Nov. 1951, Vol. 10, No. 4, pages 902-906.

Soybean Stem Rot

Sclerotinia stem rot of soybeans is a minor disease of soybeans in major producing areas but is occasionally destructive in a few fields. Its existence has been reported in Maryland, Iowa, New York and Virginia.

There appears to be no ready explanation why this, one of the least prevalent of soybean diseases, does cause severe, localized damage.

SCLEROTINIA STEM ROT OF SOYBEANS. By Donald W. Chamberlain. *Plant Disease Reporter*. Vol. 35, No. 11, Nov. 15, 1951. U. S. Department of Agriculture, Washington 25, D. C.

Miscellaneous

THE INFLUENCE OF SOYA FLOUR ON BREAD DOUGHS. I. A PAPAIN-INHIBITING FACTOR IN SOYA BEANS. By E. Mitchell Learmonth. *J. Sci. Food Agric.*, Vol. 2, Oct. 1951, pages 447-449.

Aqueous extracts of raw soybeans are shown to inhibit the action of papain on a gelatin substrate. Heating the extract weakens the inhibitor.

VITAMIN AND MINERAL SUPPLEMENTS FOR GROWING AND FATTENING PIGS IN DRYLOT. By P. R. Noland, J. P. Willman and F. B. Morrison, Cornell University. *Journal of Animal Science*, Nov. 1951, Vol. 10, No. 4, pages 875-884.

BOOKS

How to Communicate

Executives are handicapped by technical personnel who do not understand when and where information is needed. The inability of professional people to present their ideas intelligently to management can be a constant source of inefficiency.

Too often the scientist does not realize the limits in both understanding and time of the average businessman. The technical man has one language, the lay businessman another. This gap can be bridged—by understanding of the fundamental principles of communication.

Chemonomics, Inc., has published a book that tries to bridge this gap. It is not another book on proper report writing. Rather, it tries to cover the over-all purpose of communication and its place as the nervous system of a business.

Most books on reporting fail to give the would-be reporter those prime essentials without which no one can say anything clearly: they fail to point out why he is reporting, to whom he is reporting and to what use his report will be put. Until a writer or speaker knows who his audience is, and what his audience wants to know, he does not know what to say.

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These are some of the questions the book tries to answer.

COMMUNICATION OF TECHNICAL INFORMATION. By Robert M. Dederich. Lithoprint, 116 pages, \$5. Order from Soybean Digest, Hudson, Iowa.

Food Sanitation

Sanitation for the Food Preservation Industries, a book recently published by McGraw-Hill Book Co., offers an unusually practical treatment of good housekeeping fundamentals for the commercial food industry. It should be of real interest to grain handlers and processors in view of the rumored "clean up" by Food and Drug Administration.

The book outlines the organization, materials and procedures that are most effective in creating and maintaining good plant sanitation.

Special treatment is given to inspection techniques, housekeeping and tidiness, the sanitary significance of microorganisms, and the construction and maintenance of buildings and equipment.

Individual chapters cover animal, bird, and insect pests, water supply, cleaning, and laboratory aids for detecting and measuring impurities in both the raw materials and finished food products.

SANITATION FOR THE FOOD PRESERVATION INDUSTRIES. 284 pages illustrated. Price \$5. Order from Soybean Digest, Hudson, Iowa.

LETTERS

"Hog Buying" Has Hurt

TO THE EDITOR:

We have lost our soybean export markets through our own stupidity. While recently talking to one of the leading grain merchants of Copenhagen, Denmark, I asked him why they were buying Manchurian beans and the difference of quality between Manchurian beans and our beans.

He said they were as clean as the beans which we sell in our stores for domestic consumption while ours often had dead rats in them, bricks, stones, dirt, and one load even had a blacksmith's anvil in it. Their moisture content ran around 10 percent,

while ours ran 14 percent to as high as 17 percent. The oil content of Manchurian beans often ran around 21 percent and ours 18 percent. Which would you buy if you were in the market?

Quality, prices being equal, is the acme of all. We have lost our knack of producing for quality in the desire for quantity. We had better look and strive for quality or we will find ourselves before long demanding that the government step in and help the soybean producer because he has lost his world market through such actions as the above.

"Hog buying" of beans with no regard to quality has hurt the soybean industry during the past decade more than any one thing that has happened. Dealers in our area buy on that basis and still expect to hold their world markets. That was all right when Uncle Sam (the taxpayer) was furnishing the money for foreign countries to buy our beans. That is past now and they will sell on their merits.

Has anyone any suggestions?—*W. H. Haslauer, Farmers Cotton & Grain Co., East Prairie, Mo.*

Flood Helped Dairymen

The flood on the Missouri River should be a help to Iowa dairymen because there are tons of colored margarine coming across from Nebraska every day and it costs 25 to 28 cents a pound and it is packed just as nice and looks just as good as the finest Iowa butter.

Seems to me it should be made in Iowa, from Iowa beans because we know it is going to be used in Iowa . . . I just cannot understand why Iowa people have to go outside Iowa to save money.—*Elmer L. Kregar, Farmers Elevator Service Co., Ralston, Iowa, in firm's news letter.*

Forgot Baldwin County

TO THE EDITOR:

The next time you list counties in the U. S. which produce a million bushels or more don't forget Baldwin County, Ala. It has been well over the million for '49, '50 and '51.—*H. I. West, Bay Minette, Ala.*

Our apologies for overlooking Baldwin County, one of the nation's largest producers of soybeans.—*Editor.*

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Urbana, Illinois

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*and what it
means to YOU!*

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Portable and fixed, with standard screw or special design, in steel and stainless steel constructions.

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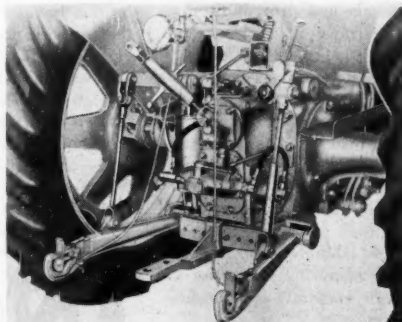
NEW PRODUCTS and SERVICES

LABOR-SAVING HITCH. Here's a device that makes it possible for the farmer to hook on to or unhook farm tools without getting out of the tractor seat. Known as the Eagle Hitch, it is an integral part of the Case Model "VAC" tractor.

The average farmer gets on and off his tractor about 20 times a day. The Eagle Hitch is designed to eliminate much of that.

The Eagle Hitch permits close coupling of tractors and implements. This makes easier and more accurate the control of the implement doing the work.

The operator simply backs the tractor to the machine, slips in a pin and drives away. He can hitch up sitting



down, right from the tractor seat. This takes about a minute.

The working depth can be adjusted from the tractor seat by simply twisting the turnbuckle. Leveling, lifting and lowering controls are within easy reach of the operator.

One of the great advantages of the Eagle Hitch is the convenience to the operator of transporting equipment from field to field and on highways. Simply couple up, lift and drive to where the work is to be done, lower the machine and go to work. Eagle Hitch implements can be more easily stored.

For more complete details write Soybean Digest 5a, Hudson, Iowa.



PORTABLE CONVEYOR. Seedburo describes its latest Hytrol conveyor as one of the most versatile labor-savers made.

It can be used inside the plant or warehouse for

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Bemis is the largest importer. Whatever the supply situation, Bemis customers are in the most favorable position.

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For many years, producers and users alike have accepted Bemis' grading of Indian burlap as the standard for the industry.

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Sixteen plants and seventeen additional sales offices, all strategically located, assure you a dependable source of supply.

Bemis is headquarters for all grades and weights of burlap... including widely used 10-oz., and the popular, special-finish Angus, which only Bemis imports.



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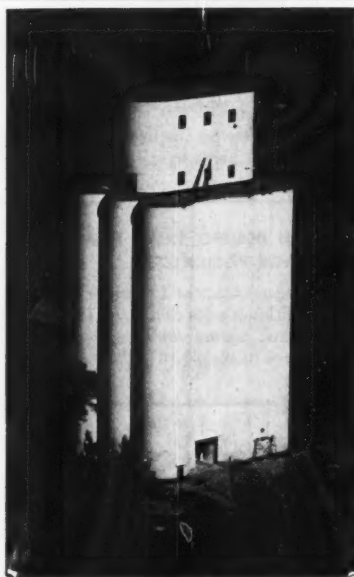
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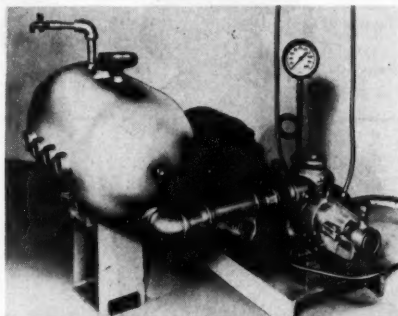


Elevator at Bellwood, Nebraska
Designed and Built by
TILLOTSON CONSTRUCTION CO.
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stacking or horizontal moving. Because it is lightweight, it can easily be carried out to the dock to speed loading and unloading of trucks or cars. Hytrol aluminum conveyor folds for carrying on your truck for easy deliveries as shown in use by the Cambridge Feed Co. above.

Special design makes it possible to actually lay this conveyor on your stairs. Movement between floors can then be handled with no need for the expense and lost space of a permanent installation. Takes the back-breaking work out of loading, unloading, stacking.

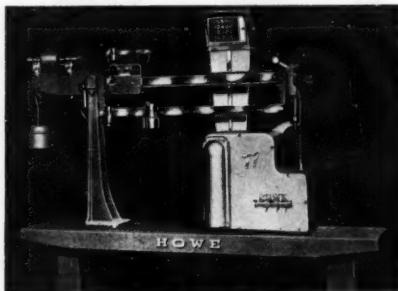
For complete information write Soybean Digest 5e, Hudson, Iowa.



CONDENSATE SYSTEM. Stansbury engineers claim highly effective savings of heat with the newly developed Stansbury Closed Condensate Return System. According to the manufacturer, the only heat loss in the system is that actually used in the steam-heated unit.

The Stansbury Closed Condensate Return System provides 20 different size pumps; handles 20 volumes, from 3,300 to 33,000 pounds of condensate per hour; and offers five pressure ranges—25, 50, 75, 100 and 150 pounds per square inch.

For complete details write Soybean Digest 5d, Hudson, Iowa.



WEIGHT INDICATOR. A revolutionary development in an automatic scale indication is announced by the Howe Scale Co., with the introduction of the new Howe 77 Weightograph. A weighing accessory featuring a new projection type of weight indication, the unit can be attached to any make of beam scale, or to any scale convertible to beam operation, making an old-fashioned beam an "automatic" of the latest type.

The unit is shown above attached to a beam scale. For full information write Soybean Digest 5h, Hudson, Iowa.

BULK-FLO CONVEYORS. A new booklet of information on Bulk-Flo conveyors and elevators has just been published by Link-Belt Co.

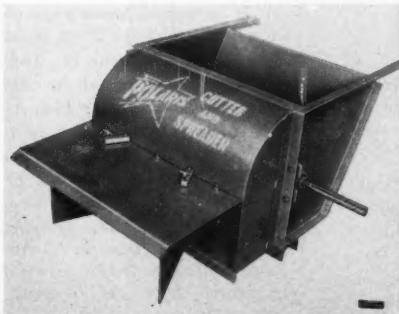


This 28-page book No. 2475 contains photographs of the Bulk-Flo in a wide variety of applications, together with the necessary data. The booklet shows views of typical applications handling soy flakes and various other products.

For a copy of the booklet and full information write Soybean Digest 5f, Hudson, Iowa.

HAND TRUCKS. A 12-page truck catalog has just been released by the Howe Scale Co. Specifications and illustrations are shown for the complete line of the latest two and four-wheel hand trucks, trailer trucks, baggage wagons, platform skids, dollies, lift jack systems, wheels, casters and molded-on rubber tired wheels.

For further information and a copy of the catalog write Soybean Digest 5g, Hudson, Iowa, and ask for Form 508-B.



STRAW SPREADER. Above is pictured the new improved Polaris Cutter and Spreader. It thoroughly processes the straw as it leaves the combine. Discing or plowing is then possible without difficulty.

For information write Soybean Digest 5c, Hudson, Iowa.

INDUCTION MOTORS. Construction features of Allis-Chalmers drip-proof and splash-proof squirrel-cage induction motors are described in a new bulletin released by the company.

For copies, write Soybean Digest 5i, Hudson, Iowa, and ask for "Squirrel-Cage Induction Motors," 51B7693.

TRUCK BODY CARE. A free book, Money Saving Tips on the Care of Your Truck Body, has been prepared to help truck owners find the hidden structural details of any truck body that needs periodic attention.

For copy of the booklet write Soybean Digest 5b, Hudson, Iowa.

THE PART PURINA PLAYS IN THE SOYBEAN CYCLE



From your farm, your soybeans move to

A country elevator
or directly to



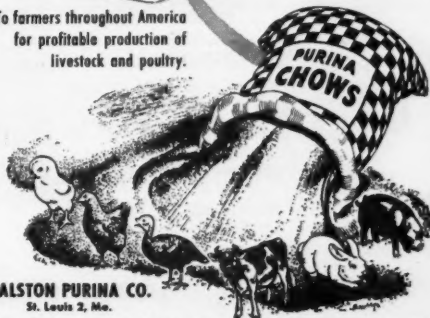
One of Purina's six soybean processing plants or one of many other processing plants. Soybean meal from both sources goes to

A Purina Chow Mill, where the meal from your soybeans and other ingredients are combined to make research-proved Purina Chows



Which are distributed through Purina Dealers

To farmers throughout America for profitable production of livestock and poultry.



RALSTON PURINA CO.
St. Louis 2, Mo.

One of the farmer's best customers for soybeans and grains

GRITS and FLAKES...

FROM THE WORLD OF SOY

◆ "Lady with a Family," an article in the spring issue of Progress thru Research, General Mills, Inc., publication, tells about two new polyamide resins, No. 90S and 100S, which have been added to the General Mills line.

◆ Now available through Allis-Chalmers are three 35mm sound filmstrips on centrifugal pumps for showing before interested groups. Each has a running time of about 30 minutes. Requests for showings should be made to the nearest Allis-Chalmers general machinery division district office.

◆ J. B. Ehsam & Sons Manufacturing Co., Enterprise, Kans., has announced the appointment of James E. Curran as purchasing agent. He started work for the company in May 1949 and has been with it since that time except for a year spent in the Air Corps in Japan and Korea.

◆ *Important Facts About the Grain Exchange*, 16-page leaflet issued by the Chicago Board of Trade, 141 West Jackson Blvd., Chicago 4, Ill., lists answers to 43 questions commonly asked about the Exchange.

◆ From the Chicago general sales office of Chase Bag Co. it has been announced that R. G. Bullock has returned to his company duties after serving a year in executive capacities with the National Production Authority's containers and packaging division. He has been made manager of the company's Cleveland, Ohio, office.

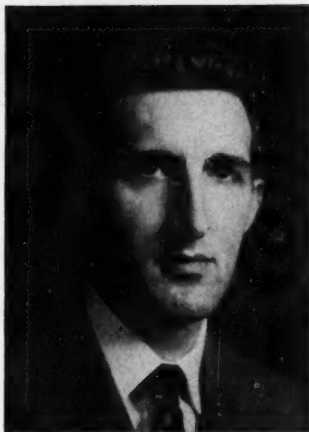
◆ Dr. Albert C. Groschke, associate professor of poultry husbandry at Michigan State College, has become technical director of the Borden Co.'s soy and feed supplements department. He will be responsible for all nutritional field service of the department. He will be assisted by Fred Pfaff and Leigh Woehling of Borden's nutritional research laboratories at Elgin, Ill.

◆ A \$2,225,000 expansion and modernization program at the Buffalo, N. Y., branch of Archer-Daniels-Midland Co. has been announced by William A. Foley, plant superintendent. When the solvent plant, a recent development in the linseed oil industry, is put into operation, ADM's daily crush of linseed will be increased from 9,000 to 12,000 bushels.

◆ *Plans for a joint convention of the Illinois Feed Association and the Illinois Poultry Improvement Association at the Hotel Leland, Springfield, Ill., Aug. 17-19, have been announced. Co-chairmen will be Ernest P. Kraft, Kraft Feed Store, Hebron, Ill., president of IFA, and W. H. Hedge, Buena Vista Mill & Hatchery, Chester, Ill., president of IPIA.*

◆ A cocktail party sponsored by Mente & Co., Inc., New Orleans bag manufacturers, will feature the sixth joint annual convention of the Georgia Cottonseed Crushers Association and the Alabama-Florida Cottonseed Products

NEW OFFICE BY AMSCO



TOM BARKER

The establishment of an American Mineral Spirits Co. office in Jackson, Miss., was announced by Edward M. Toby, Jr., president. Amisco's new offices are located in the Plaza Building, Congress and Amite St., Jackson, Miss. The opening of the office in Jackson marks the creation by Amisco of a Midsouth territory to better serve accounts in that area in the rapidly growing field of extraction, Toby said.

Thomas Barker has been promoted to the position of manager of Amisco's new Midsouth territory, having been moved from the company's Southeast headquarters at Atlanta. He will be responsible for the marketing of Amisco's complete line of

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See how economically you can gain the storage capacity you should have with BS&B Grain Tanks—ideal for storage of any kind of grain, feed, vegetable oil or molasses. Design layouts and standard foundation prints furnished without charge.

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Agricultural Div.,

Kansas City 3, Mo.

ASSOCIATE MEMBER, GRAIN AND FEED DEALERS NATIONAL ASSOCIATION

Association to be held in Savannah, Ga., June 2-3. Hosts will be O. F. Littlefield, Jim Baggs, Jr., Nelson Thatch and Herb Henry of the Mente staff.

◆ Clarence Johnson, 59, former vice president of Ralston Purina Co., St. Louis, died unexpectedly recently of a heart attack in Louisville, Ky., where he was attending a committee meeting. Johnson had given up his position with Ralston Purina to devote his time to church work in Atlanta, Ga.

◆ Link-Belt Co., 307 N. Michigan Ave., Chicago 1, Ill., has increased its number of directors from 12 to 14. The two new directors are Robert C. Becherer, executive vice president of the company, and William J. Kelly, president of the Machinery and Allied Products Institute.

◆ Tillotson Construction Co., Omaha, Nebr., has started construction of a 130,000-bushel concrete elevator for the Farmers Union Cooperative Association of Fairfield, Nebr.

◆ Two instruction booklets covering the installation, operation and repair of its single-stage, single-suction and multi-stage centrifugal pumps have been released by Allis Chalmers Manufacturing Co., 1159 S. 70th St., Milwaukee, Wis. Write for 08X7780 and 08X7813.

◆ K. C. Towe, president of American Cyanamid Co., has announced the recent formation of a new corporation, Chemical Construction (Inter-American) Ltd. A Cyanamid subsidiary with main offices in Toronto, Canada, Chemical Construction (Inter-American) Ltd. will design and build chemical plants in all nations of the Western Hemisphere except the United States. Its operations will parallel those of another Cyanamid unit, Chemical Construction Corp., which designs and builds chemical plants in the United States and throughout the world.

◆ "Here's Bread That Is Bread," is title of a page describing soy and other loaves in Mar. 22 Missouri Ruralist.

◆ Raymond L. Sutton of Detroit has been appointed to head a new sales and service office for the tractor and industrial engine division of Ford Motor Co. in Southeastern states. He will have headquarters at Atlanta, Ga.; and offices at Charlotte, N. C.; Memphis, Tenn.; New Orleans, La.; and Jacksonville, Fla.

◆ Forty years' service with Allis-Chalmers Manufacturing Co., Milwaukee, was celebrated by R. A. Crosby, agricultural and export advertising manager, tractor division, Apr. 17. He started with the Studebaker Co. in 1912, and went to work for the Advance-Rumley Co. in 1915. This firm was purchased by Allis-Chalmers in 1931.

◆ "We've moved to an office of our own! Now in Room 842, Des Moines Bldg., Des Moines, Iowa, with the same telephone number, 2-7426," announces Feed Institute, Inc.

technical naphthas and petroleum base solvents to industry.

During World War II, Lt. Tom Barker served with distinction as a navigator in the Air Force.

Barker has had a number of years of technical experience in the petroleum industry and is well acquainted with users of industrial solvents in the Midsouth territory. He is particularly qualified in the vegetable oil extraction field.

— s b d —

STALEY EXECUTIVE



ERNEST C. GRAY

Appointment of Ernest C. Gray as a sales executive in the feed department of the A. E. Staley Manufacturing Co., Decatur, Ill., corn and soybean processor, has been announced by Paul R. Ray, soybean division manager.

A graduate of Northwestern University, Gray was formerly with Cargill, Inc., Minneapolis, in charge of soybean oil meal sales in the territory west of the Mississippi River.

Kansas City 6, Mo.

Harrison 1801 TWX 144
1016 Baltimore Bldg.

St. Louis 2, Mo.

Chestnut 1122 TWX 238
405 Merchants Exch.

THE NELLIS FEED CO.

Brokers of Soybean Oil Meal

Chicago 4, Ill.

Wabash 2-7322 TWX 623
1832 Board of Trade Bldg.

Buffalo 2, N. Y.

925 Marine Trust Bldg.
Madison 5622 TWX 546

What George Carlson of Barend, S. Dak., found out on his trip to some of Cargill's 26 processing plants.

"Bob, I had no idea Creative Processing eats up three-fourths of all farm products."



"We feed most of our corn but we don't stop to think that most of the other farm products must be prepared by someone for someone else."

"My wife and I went through some of Cargill's 26 processing plants where they make linseed oil, poultry and stock feeds, soy oil for shortening and the like. I started asking questions about processing, and so we went to Cargill's research department for our answer."

"Well over 75% of all farm products are processed before being eaten or used. Even 44% of grain must be processed. And think of corn processing calling for over 600,000,000 bushels last year. All that processing takes a lot of doing by people like Cargill. And, thanks to Cargill's creative processing, industry is continuing to eat up more and more farm products."



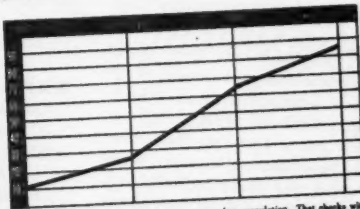
"I could have spent a day listening to Dr. J. Wesley Nelson, head of Nutrena Research, tell how much thinking, testing, biological feeding and such that enters into making Nutrena feeds. They have pioneered a lot of the work on antibiotics, vitamins, amino acids, protein levels and the like that helps our chickens and livestock grow so fast and so well. That's what Cargill calls 'Creative Processing,' thinking out the ways to use more farm products, and making them do a better job."



"We sometimes think of linseed oil as merely the raw product squeezed out of flax seed. But Cargill goes much further than that. They use special additives that will make the finished paint spread farther for certain jobs, or thicker for something else. They use it that way, I found it takes a lot of creative thinking and processing to find more uses for flax seed, and other things we grow."



"Those of us who grow soybeans just want to grow them, sell 'em and forget 'em. That's a big job, but processing that soy, and finding new ways to use it up, is the job of a processor like Cargill. It's awfully complicated, but just think—every new bit of creative processing pulls more stuff from our farms, and helps keep up prices. I found that we farmers and Cargill are pulling together on that. They like to see good farm prices, too, and are doing something about it."



"We looked at this chart of the increase in non-farm population. That checks with the other figures that show about 75% of all farm products are processed. As a farmer, I was interested to see that the 26 Cargill factories and processing plants are all close to the growing areas of the farm products needed. That makes for more local markets for us. Besides that, Cargill's grain marketing division sells our crops to other grain markets all over the world, and so helps us get better prices for farm products."



CARGILL, Creative Processors of Farm Products

Processing and Grain Marketing Offices in Minneapolis and 35 other cities

This is how Cargill is telling the importance of processing and processors to farmer-readers of papers like The Farmer, Wallaces' Farmer, Dakota Farmer, etc.

WASHINGTON DIGEST

NEW CEILING. The new soybean oil meal ceiling of \$81 a ton is exactly in line with cottonseed meal ceilings and corn at parity, according to OPS. After earlier findings that an \$83 meal ceiling would be required, in combination with 16½-cent oil, to clear the legal minimum ceiling for beans, OPS economists checked again and reversed themselves. All is now legal, and correct as to price relationships, they say.

The ceiling rollback and suspension of controls of all edible oils, and some other fats and oils, such as vegetable soap oils, is expected to continue unless a hot war develops. Even then, the official intention is to stick to the oil ceilings of 16½ cents on soybean oil, 18 cents on cottonseed oil, and 19 cents on corn oil.

A price regulation for mineralized meal is under consideration. It's probable unless the new bean meal ceiling relieves the price pressure on all meals.

Linseed meal price ceilings are to be increased in line with the soybean oil meal ceiling. A \$7-a-ton increase is probable, putting the top of the individual freeze ceilings on linseed meal about \$2 a ton under bean meal.

OPS economists say their recent studies show that bean meal prices have not increased more in proportion to cottonseed meal prices the last few years. Increases have been dollar for dollar. However, when meal prices are declining, OPS says bean meal prices fall off only about

85 cents a ton for every \$1 decrease in cottonseed meal prices.

FORECAST. Most officials lean to the high side of bean prices the next few months. They base this on an expectation that meal prices will stay high, and on relatively low stocks at mills and elevators compared to a year ago. Estimates of the peak price range up to \$3.20 a bushel, Chicago.

They figure processors will have to bid up the price on the relatively large farm stocks in order to keep plants going. This in turn means that processors will have to get their margins out of mineralized meal sales, officials reason. They accept the trade estimate that 52 percent of processors are selling mixed meals.

There were more beans on farms and less at interior elevators and mills Apr. 1 than a year ago. Stocks on farms were 60 million bushels compared to 48 million bushels Apr. 1, 1951. Preliminary estimates indicate that elevators and crusher stocks last Apr. 1 totalled 60 to 65 million bushels compared to 96 million bushels the same date in 1951.

Preliminary estimates of total stocks Apr. 1 are 120 to 125 million bushels compared to 144 million bushels a year ago.

EXPORTS. Combined exports of beans and oil so far haven't been too bad, compared to the first half of the 1950-51 year, but the effects are yet to be felt of the loss of the Spanish and Italian markets. The heavy ex-



By **WAYNE DARROW**
Washington Correspondent for
The Soybean Digest

port movement to these countries last year was spring and summer.

A favorable factor in an otherwise poor export prospect is the fact that U. S. soybean oil is offered at bargain prices. Some foreign officials think this may attract some buyers, though Europe wants beans rather than oil.

It's too early to tell, but it appears that fewer Manchurian beans are moving to Europe than at this time a year ago. The Russians appear to be short of edible oils, and that may pull some of the Manchurian beans out of Western Europe, which is the U. S. market.

On the basis of scanty news available, one tanker of oil went to Odessa. In terms of beans, it contained the equivalent of 1.6 million bushels. Of two cargoes of beans of which officials have news, one went to Russia.

COTTONSEED. The new cottonseed price support program continues the "package deal" for crush-

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Seed and Mill Products

IS Consistently ACCURATE

You can test the same sample repeatedly and obtain the same reading, an accurate one, always. The Universal

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STILLPASS TRANSIT CO.
CONTRACT HAULERS

Inter and Intra State Tank Truck Operators. Edible Oils
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Cincinnati 33, Ohio If no answer call Montana 1052

ers, which they don't like and didn't use much last year. The 90 percent of parity loan level on seed will be \$66.40 a ton for basic grade (100), compared to \$65.50 a ton on the 1951 crop. The purchase rate will be \$62.40 a ton compared to \$61.50 last year.

The CCC purchase rates to crushers for by-products will be different this year, and may possibly be more attractive to crushers. All the increase will be added to meal and cake—and perhaps more. Last year the CCC price on meal of \$54 a ton was too low to attract many crushers, despite the oil purchase price of 15½ cents a pound.

Officials aim to keep cottonseed and by-product purchase prices in the support program in line with soybean support rate, and with OPS ceilings on oil and meal of both these seed crops.

CCC bought less than 1 percent of the 1951 cottonseed crop in its price support operations with crushers. Nearly all of the crusher participation came in the West.

Total crusher tenders of products to sell CCC to Apr. 1 were the equivalent of 397,320 tons of seed out of a total seed crop of 6,186,000 tons, of which all was available for crushing except 10% to 15% held back for planting. Oil purchases came to 134 million pounds, and meal 172,000 tons.

USDA unofficially concedes farmers won't plant the goal of 28 million acres of cotton this spring. Labor shortage and price uncertainty are the reasons. Despite a prospective smaller acreage than last year, a crop of 15 to 16 million bales is quite possible if growing weather is good.

FREIGHT RATE. The recent freight rate increase will raise terminal market CCC loan rates from 1 cent to 2 cents a bushel, officials now estimate. It is also forcing CCC to recompute all county loan rates. Those farthest from terminals will be lowered a little, those midway will remain about the same, and those near terminals may be raised slightly. The 1952 bean crop support rate is \$2.56 a bushel, national farm average, compared to \$2.45 for the 1951 crop.

The freight rate raise to the full 15% increase asked by railroads a year ago, and only partly granted

last August, is the 12th increase allowed by the Interstate Commerce Commission since the war.

USDA is considering attacking the last ICC decision in the courts, on the grounds that only five of the 11 commissioners sat through the hearings, and four of those five recommended a smaller increase than ICC ordered.

SUPPORTS. The first major hearings on farm price supports since 1949 were held last month by the Senate agriculture committee. Senators sponsoring three bills to raise price supports in various ways were encouraged. They found no more opposition than expected.

One bill has considerable chance to pass the Senate, at least. It's S. 2115 by Senators Young (R., N.D.) and Russell (D., Ga.), which would continue beyond Jan. 1, 1954, the old—and higher—parity formula for "basic" crops. As the law now reads, all price supports on crops in 1954 and after will be figured on the basis of the modern parity formula.

This would lower 1954 price support on corn by 15 cents to 21 cents a bushel, on wheat by 27 cents to 31 cents a bushel, and on cotton and peanuts by about 2 cents a pound.

The Farm Bureau proposes to shift from the old to the modern parity formula by 5 percent a year, starting in 1954. This is not acceptable to most of the Farm Bloc. The hearings brought out that this compromise is possible:

Base price supports of the four crops on the present parity formula for the duration of the "national emergency" as defined in the Defense Production Act of 1950, then start lowering parity prices by 3 percent or 5 percent a year. The Senate will probably pass such a bill in this election year if it gets to the floor.

The two other bills considered in the hearings were S. 450 by Senator Russell, fixing price supports at 90 percent of parity for all crops for which USDA asks increased production (new "Steagall Amendment"), and S. 2996 by Senator Kerr (D., Okla.) setting support for almost all major farm products at 100 percent of parity. Neither bill has much chance.

Secretary Brannan favored all the bills, with certain modifications. He favored 100 percent of parity price

supports if production payments are provided to cover perishables.

All avowed Democratic candidates for the presidency are high farm price support men. Senator Kefauver (D., Tenn.) has endorsed the flexible scale now in the law, but he would raise parity sharply by including farm family labor in computing costs. Senator Russell of Georgia is rated on the Hill as the most friendly toward aid to agriculture of any Senator. Senator Kerr of Oklahoma has come out for 100 percent of parity price supports.

On the GOP side, Senator Taft of Ohio is for flexible price supports and the present basic farm program, but he would decentralize the program and cut costs. He would limit soil conservation work primarily to research and technical advice. He would have price supports high enough to prevent farm disaster, but not high enough to guarantee profits.

General Eisenhower's farm views are not now known, but he holds to a middle-of-the-road philosophy which probably would lead him to favor the present farm programs without radical change. Among his ardent supporters on the Hill are Representative Hope of Kansas, who probably would have Ike's ear on farm matters. Ike's brother, Milton, president of Penn State College, would also probably be influential.

Market Street

We invite the readers of THE SOYBEAN DIGEST to use "MARKET STREET" for their classified advertising. If you have processing machinery, laboratory equipment, soybean seed, or other items of interest to the industry, advertise them here.

Rate 10c per word per issue.
Minimum insertion \$2.00.

AVAILABLE APR. 15—FOR SALE OR lease. 25,000 square feet dead storage, approximately 100,000-bushel grain or seed storage wooden bins, concrete floors, sprinkler system, railroad switch, track scale, suitable for feed, seed, soybean processing plant. Address inquiry Box 120, Louisville 1, Ky.

WANTED—ONE LATE MODEL French expeller with 5-high 72" cooker. Planters Fertilizer & Soybean Co., Pine Bluff, Ark.

FOR SALE—CERTIFIED BLUE TAG grade Dorthchoy 2 soybean seed in 2 bu. bags. C. L. Wylie, Blytheville, Ark.

FOR SALE—ALL MODELS ANDERSON expellers, French screw presses, flaking and cracking rolls, stack cookers, desolventizers, filter presses, Anderson rotary tube dryers, meal coolers. Pittock & Associates, Glen Riddle, Pa.

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is Dry Inoculation of seed Practical?

Directions say use water when applying inoculant to seed. But farmers reasoned that since the fine, easy flowing humus base of LEGUME-AID Inoculant visibly clings to dry seed, the moistening process could be omitted. They tried it and claim success, even with legumes as smooth as soybeans.

LEGUME-AID

Directions for using the famous "Inoculant in the Carton" will not be changed until government agronomists approve the dry-use method. Meanwhile we suggest that farmers who wish to experiment, try dry inoculation with LEGUME-AID on only part of their seed and moisten the rest in the conventional way. Then compare results.



Tell your dealer you want LEGUME-AID

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The INOCULANT in the CARTON

IN THE MARKETS

April Markets in Doldrums

The government's announcement of the new \$81 ceiling on bulk soybean oil meal Apr. 23, its suspension of vegetable oil ceilings and rumors of a floor under vegetable oils helped to reverse temporarily the downward trend in soybeans and oils in the face of generally declining commodity markets at month's end.

Soybean futures were also bolstered by the belief that country offerings will continue light.

The \$8 raise in the meal ceiling did not bring a large amount of straight soybean oil meal into the market. And there was confusion over the legality of selling the meal mixes outside the ceiling. Processors said they could not turn out meal at a profit even at the higher ceiling.

Otherwise April was characterized by the drop in the soybean oil market, which carried soybean oil to the lowest point in 11 years, and by inactivity in the bean and meal markets.

Overhanging the markets were possibilities of settlements in both Europe and Korea, the fact that record stocks of soybeans were still in farmers' hands, slack processor demand and promising new crop prospects.

May No. 2 soybeans, Chicago, opened at \$2.95, the high. Low was \$2.82 May 21. Close was \$2.89 3/4.

Crude soybean oil, tankcars, f.o.b. Decatur, opened for the month at 9 3/4c, the high, and closed at 9c. Low was 8 2/3c Apr. 23.

Bulk soybean oil meal, Decatur, was quoted nominally at the ceiling all month. It was raised from \$74 to \$81 by OPS Apr. 23.

MEMPHIS SOYBEAN OIL MEAL FUTURES APR. 30*

(Contract 100 tons. Bulk Decatur.)
May 81.00b; July 81.00b; Aug. 80.00b; Oct. 72.25@73.00; Dec. 70.00@70.25; Jan. 69.75@70.25; Mar. 68.25@70.00.
Sales 5,100 tons.

CHICAGO SOYBEAN OIL MEAL FUTURES CLOSE APR. 30*

May 81.00b; July 81.00b; Oct. 72.50b—73.35a; Dec. 70.00b—70.75a.

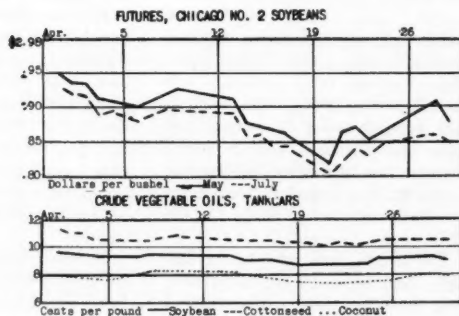
CHICAGO SOYBEAN OIL FUTURES CLOSE APR. 30*

May 8.93b—8.97a; July 9.27; Sept. 9.47b—9.48a; Oct. 9.60b—9.63a; Nov. 9.72b—9.76a; Dec. 9.84b—9.87a.

NEW YORK SOYBEAN OIL FUTURES CLOSE APR. 30*

May 9.00b; July 9.25b; Sept. 9.51-50; Oct. 9.55b; Dec. 9.70b.

a—asked. b—bid. *Reported by the Chicago edition of Wall Street Journal.



FUTURES TRADING AND OPEN CONTRACTS IN SOYBEAN OIL MEAL ON MEMPHIS MERCHANTS EXCHANGE CLEARING ASSOCIATION (IN TONS)

	Volume of Trading	Open Contracts		Volume of Trading	Open Contracts
Mar. 28	900	114,200	Apr. 15	11,800	116,900
Mar. 29	2,100	114,400	Apr. 16	1,600	116,000
Mar. 31	900	114,900	Apr. 17	600	116,300
Apr. 1	7,700	119,400	Apr. 18	700	116,100
Apr. 2	2,000	120,000	Apr. 19	1,300	117,100
Apr. 3	1,400	119,500	Apr. 21	2,600	117,900
Apr. 4	500	119,700	Apr. 22	8,200	113,400
Apr. 5		119,300	Apr. 23	4,500	113,400
Apr. 7	300	119,500	Apr. 24	7,800	112,200
Apr. 8	21,500	118,900	Apr. 25	18,200	108,100
Apr. 9		118,900	Apr. 26	4,200	108,700
Apr. 10	200	118,900			
Apr. 12	400	118,700			
Apr. 14	2,900	121,500			
			Total for 25 days reported	102,300	

● **FACTORY USE SOYBEAN OIL.** Factory production of crude soybean oil totaled 222,247,000 lbs. in February, compared with 234,386,000 lbs. in January, reports Bureau of the Census. Factory production of the refined oil was 180,626,000 lbs. in February compared with 179,073,000 lbs. in January.

Factory consumption of crude soybean oil in February was 197,365,000 lbs. compared with 191,820,000 lbs. in January. Consumption of the refined oil was 168,379,000 lbs. in February, compared with 159,187,000 lbs. in January.

Factory and warehouse stocks of crude soybean oil totaled 240,510,000 lbs. Feb. 29 compared with 230,950,000 lbs. Jan. 31. Stocks of the refined oil were 103,120,000 lbs. Feb. 29 compared with 97,092,000 lbs. Jan. 31.

Usage of crude soybean oil in February: soap 129,000 lbs.; paint and varnish 385,000 lbs.; lubricants and greases 39,000 lbs.; other inedible products 1,424,000 lbs.

Usage of refined soybean oil in February: shortening 47,173,000 lbs.; margarine 7,384,000 lbs.; other edible products 5,852,000 lbs.; soap 34,000 lbs.; paint and varnish 5,050,000 lbs.; lubricants and greases 17,000 lbs.; linoleum and oilcloth 1,664,000 lbs.; other inedible products 9,543,000 lbs.

Usage of hydrogenated edible soybean oil in February: shortening 17,564,000 lbs.; margarine 47,431,000 lbs.; other edible products 947,000 lbs.

● **STOCKS ON FARMS.** Farm stocks of soybeans on Apr. 1 are estimated at 59.6 million bushels, according to the crop reporting board of the U. S. Department of Agriculture. This is 11.5 million bushels more than a year ago and the highest Apr. 1 stocks in the 10 years of record. The eight-year (1943-50) average Apr. 1 farm stocks is 38.7 million bushels.

Disappearance from farms for the January-March quarter amounted to about 44 million bushels. This is nearly 10 million bushels less than the record disappearance of Jan.-Mar. 1951 but higher than in any other year. In the first quarter of last year soybeans reached ceiling prices and farmers sold most of their remaining stocks after making allowances for their seed requirements. This year prices are well below ceiling levels and many farmers appear to be holding for possible price increase. Stocks on farms in most states are more than adequate to meet seeding requirements for the 1952 crop.

The North Central states as usual have a large proportion of the farm stocks—over 90 percent of the total. Illinois has about 17 million bushels or 18 percent of its 1951 production. Iowa has unusually heavy stocks, 12.4 million bushels, amounting to 38 percent of the 1951 crop. Most of the remaining stocks in the area are in Ohio, Indiana, Minnesota, and Missouri. Stocks are small, as usual, in the South Central states. The total



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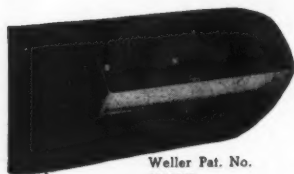
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Apr. 1 farm stocks for the area is about 2.5 million bushels equivalent to 9 percent of the 1951 production.

SOYBEAN STOCKS ON FARMS APR. 1

State	Average 1943-50	1951	1952	State	Average 1943-50	1951	1952
N. Y.	65	32	38	Md.	225	228	259
N. J.	95	160	79	Va.	378	433	478
Pa.	162	113	163	W. Va.	5	3	3
Ohio	4,511	5,396	5,766	N. C.	859	1,045	940
Ind.	5,477	5,576	8,383	S. C.	79	186	363
Ill.	12,784	11,488	17,021	Ga.	36	100	77
Mich.	533	654	836	Fla.	3	3	3
Wis.	210	139	255	Ky.	302	309	420
Minn.	1,945	4,448	4,524	Tenn.	200	388	352
Iowa	7,459	9,766	12,353	Ala.	84	28	48
N. Dak.	26	90	109	Miss.	380	895	714
S. Dak.	93	249	331	Ark.	404	625	747
Nebr.	89	168	70	La.	93	33	29
Kan.	350	786	872	Okl.	14	31	187
Del.	235	194	309	U. S.	38,732	48,085	69,603

● STOCKS. Production and Marketing Administration's commercial grain stock reports.

U. S. Soybeans in Store and Afloat at Domestic Markets

	Mar. 31	Apr. 8	Apr. 15	Apr. 22
Atlantic Coast	887	657	703	719
Gulf Coast	223	131	247	441
Northwestern and				
Upper Lake	276	300	280	237
Lower Lake	1,809	1,522	1,496	987
East Central	1,425	1,431	1,313	1,222
West Central				
Southwestern & Western	836	798	812	717
Pacific Coast	0	0	0	0
Total current week	5,456	4,839	4,851	4,323
Total Year ago	12,513	12,077	11,467	10,882

U. S. Bonded Soybeans in Store and Afloat at Canadian Markets				
Total current week	50	29	0	0
Total Year ago	96	96	96	83

Total North American Commercial Soybean Stocks				
Current week	5,506	4,868	4,851	4,323
Year ago	12,609	12,178	11,563	10,965

The U. S. Department of Agriculture reported Apr. 29 that Apr. 1 holdings of soybeans in all positions totaled 129,625,000 bushels compared with 218,378,000 bushels Jan. 1, and 123,553,000 bushels Apr. 1, 1951.

Farm stocks were reported the highest of record, and interior mill, elevator and warehouse stocks were the second highest.

Terminal stocks were the lowest for Apr. 1 since 1943. Processing plant stocks were the third highest of record for this date, but were exceeded by stocks on Apr. 1, 1950 and 1951.

● EXPORTS. U. S. exports of soybeans and soybean oil for February, as reported by the Office of Foreign Agricultural Relations:

Soybeans	2,359,057 bu.
Soybean oil (crude)	25,313,375 lbs.
Soybean oil (refined but not further processed)	1,525,312 lbs.
Soybean oil (refined, deodorized and hydrogenated)	1,380,212 lbs.

Converted to a soybean equivalent basis, the exports for February amounted to 5,262,251 bushels.

January soybean exports were erroneously reported at 18,923 bushels in the April issue. The correct figure is 1,135,397 bushels. On a soybean equivalent basis the exports for January amounted to 2,958,466 bushels rather than the 1,841,992 bushels reported.

The grain inspection department of the New Orleans Board of Trade reports the following shipments cleared for export shipment from the Port of New Orleans during March; 539,000 bushels for Japan; and 93,000 bushels for Norway.

● **PROCESSING OPERATIONS.** Reported by Bureau of Census, Department of Commerce, for January, February.

PRIMARY PRODUCTS EXCEPT CRUDE OIL, AT CRUDE OIL MILL LOCATIONS: PRODUCTION, SHIPMENTS AND TRANSFERS AND STOCKS, FEBRUARY 1952—JANUARY 1952

Products	Production		Shipments and transfers		End of month stocks	
	Feb. 1952	Jan. 1952	Feb. 1952	Jan. 1952	Feb. 29, 1952	Jan. 31, 1952
SOYBEAN:						
Cake and meal†	523,756	*563,756	510,201	*565,143	46,245	*32,690
Leicithin‡	1,491,545	1,641,580	1,500,915	1,615,940	3,062,374	2,870,844
Edible soy flour, full fat†	597	551	502	536	370	275
Edible soy flour, other†	8,722	6,172	8,893	6,012	1,380	1,501
Industrial soy flour†	2,535	1,349	(1)	1,376	(1)	928

(1) Not shown to avoid disclosure of individual operations. * Revised. † Unit of measure in tons. ‡ Unit of measure in pounds.

SOYBEANS: RECEIPTS, CRUSHINGS AND STOCKS AT OIL MILLS, BY STATES, FEBRUARY 1952—JANUARY 1952
(Tons of 2,000 pounds)

State	Receipts at mills		Crushed or used		Stocks at mills	
	Feb. 1952	Jan. 1952	Feb. 1952	Jan. 1952	Feb. 29, 1952	Jan. 31, 1952
U. S. —	629,039	*392,858	672,120	*721,389	1,483,956	*1,527,036
Arkansas —	(1)	2,734	23,206	29,153	63,373	91,756
Illinois —	258,451	*147,557	263,869	275,383	491,125	*496,543
Indiana —	62,841	28,353	53,504	68,196	91,269	81,932
Iowa —	127,674	60,066	106,545	117,503	173,673	152,544
Kansas —	13,824	12,321	15,238	16,582	27,685	29,099
Kentucky —	10,500	10,785	16,562	19,421	46,155	52,217
Minnesota —	29,732	19,886	27,724	27,980	24,136	22,128
Mississippi —	(2)	(2)	7,598	*9,662	(2)	*31,823
Missouri —	6,173	13,937	18,801	23,421	102,866	115,494
Nebraska —	(2)	1,232	4,382	5,219	(2)	22,393
N. Carolina —	1,182	5,783	9,940	8,136	43,323	51,131
Ohio —	81,701	54,236	71,657	75,781	210,230	200,186
Oklahoma —	(2)	2,697	4,213	5,545	(2)	7,249
Texas —	(2)	(2)	(2)	(2)	(2)	(2)
All other —	37,188	*33,261	48,881	48,807	206,120	172,541

* Revised. (1) Receipts exceeded by reshipments of beans previously received and held in the State. U. S. receipts are on a net basis, excluding transfers between mills. (2) Included in "All other" to avoid disclosure of individual operations.

SOYBEAN PRODUCTS: PRODUCTION AND STOCKS AT OIL MILL LOCATIONS, BY STATES, FEBRUARY 1952—JANUARY 1952

State	Crude oil (thousand pounds)				Cake and meal (tons)			
	Production		Stocks		Production		Stocks	
	Feb. 1952	Jan. 1952	Feb. 29, 1952	Jan. 31, 1952	Feb. 1952	Jan. 1952	Feb. 29, 1952	Jan. 31, 1952
U. S. —	222,247	*234,386	110,673	*113,711	523,756	*563,756	46,245	*32,690
Ark. —	6,930	8,216	2,649	3,448	17,997	22,239	1,653	1,802
Ill. —	87,989	94,687	41,841	46,111	199,521	209,383	13,902	9,445
Ind. —	18,497	20,006	3,671	6,991	42,510	46,707	8,144	4,270
Iowa —	33,105	36,012	24,891	20,950	85,869	94,272	6,105	2,926
Kan. —	4,810	5,224	3,484	4,021	12,013	13,490	429	(1)
Ky. —	5,970	6,883	915	844	12,815	15,116	717	715
Minn. —	8,211	7,896	3,798	4,742	21,806	22,189	1,360	1,123
Miss. —	2,410	*2,945	2,647	*1,884	6,151	*7,706	1,095	*1,005
Mo. —	3,765	6,765	1,721	1,767	15,209	18,328	1,149	1,021
Nebr. —	1,241	1,514	438	755	3,678	4,447	(1)	(1)
N. C. —	2,714	2,234	2,590	1,569	7,849	6,412	932	929
Ohio —	28,185	25,461	7,766	8,954	57,055	59,706	3,319	3,028
Okl. —	1,755	1,669	678	(1)	3,084	4,662	914	586
Texas —	(1)	(1)	(1)	(1)	(1)	(1)	(1)	291
All other —	14,665	14,854	13,584	11,163	38,249	39,099	6,526	5,599

* Revised. (1) Included in "All other" to avoid disclosure of individual operations.

● **SHORTENING.** Standard shortening shipments reported by the Institute of Shortening and Edible Oils, Inc., in pounds.

March 29	4,519,455
April 5	4,948,614
April 12	4,226,994
April 19	4,381,319
April 26	4,177,626

Grand total of shortening and edible oil shipments for the first quarter of 1952 was 868,345,000 lbs., reports the Institute.

MAY, 1952

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"Under these circumstances," the agency declared, "the director has determined that it is now necessary to adjust soybean meal ceiling prices to a point which reflects more closely the historical price relationship between soybean meal and competing feeds."

Through February farmers had placed a total of 11,062,656 bushels of soybeans under price support, according to USDA. Of this amount, 5,384,317 were farm stored under loan; 5,306,037 were warehouse stored under loan; and 372,302 bushels were under purchase agreement.



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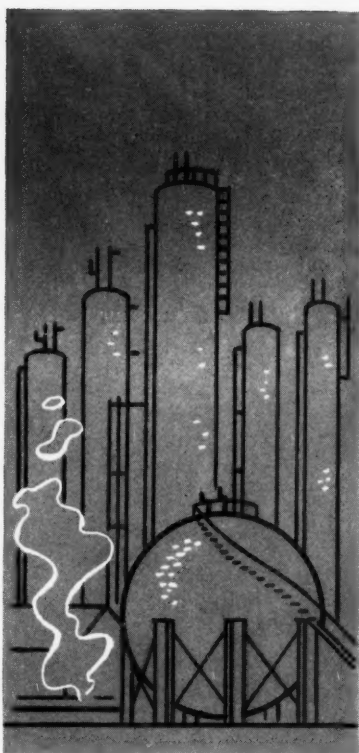
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